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PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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                     Welcome to STN International
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                 Web Page for STN Seminar Schedule - N. America
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NEWS
         JUL 28
                 EPFULL enhanced with additional legal status
                 information from the epoline Register
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         JUL 28
                 IFICDB, IFIPAT, and IFIUDB reloaded with enhancements
NEWS
      5
         JUL 28
                 STN Viewer performance improved
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         AUG 01
                 INPADOCDB and INPAFAMDB coverage enhanced
                 CA/CAplus enhanced with printed Chemical Abstracts
NEWS
      7
         AUG 13
                 page images from 1967-1998
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      8
         AUG 15
                 CAOLD to be discontinued on December 31, 2008
NEWS
      9
         AUG 15
                 CAplus currency for Korean patents enhanced
NEWS 10
         AUG 27
                 CAS definition of basic patents expanded to ensure
                 comprehensive access to substance and sequence
                 information
NEWS 11
         SEP 18
                 Support for STN Express, Versions 6.01 and earlier,
                 to be discontinued
         SEP 25
NEWS 12
                 CA/CAplus current-awareness alert options enhanced
                 to accommodate supplemental CAS indexing of
                 exemplified prophetic substances
                 WPIDS, WPINDEX, and WPIX coverage of Chinese and
NEWS 13
                 and Korean patents enhanced
NEWS 14
         SEP 29
                 IFICLS enhanced with new super search field
NEWS 15
         SEP 29
                 EMBASE and EMBAL enhanced with new search and
                 display fields
NEWS 16
         SEP 30 CAS patent coverage enhanced to include exemplified
                 prophetic substances identified in new Japanese-
                 language patents
NEWS 17
         OCT 07
                 EPFULL enhanced with full implementation of EPC2000
         OCT 07 Multiple databases enhanced for more flexible patent
NEWS 18
                 number searching
NEWS 19
         OCT 22
                 Current-awareness alert (SDI) setup and editing
                 enhanced
NEWS 20
         OCT 22
                 WPIDS, WPINDEX, and WPIX enhanced with Canadian PCT
                 Applications
NEWS 21
         OCT 24
                 CHEMLIST enhanced with intermediate list of
                 pre-registered REACH substances
NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
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AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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NEWS IPC8 For general information regarding STN implementation of IPC 8

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L1STRUCTURE UPLOADED

SAMPLE SEARCH INITIATED 17:36:17 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 793 TO ITERATE 100.0% PROCESSED 793 ITERATIONS 50 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE** BATCH **COMPLETE**

PROJECTED ITERATIONS: 14171 TO 17549 PROJECTED ANSWERS: 8454 TO 11106

50 SEA SSS SAM L1

=> s 11 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y FULL SEARCH INITIATED 17:36:22 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 15904 TO ITERATE

9905 ANSWERS

100.0% PROCESSED 15904 ITERATIONS SEARCH TIME: 00.00.01

9905 SEA SSS FUL L1 T.3

=> file hcaplus COST IN U.S. DOLLARS

CE FILE TOTAL
ENTRY SESSION
184.34 184.55 SINCE FILE FULL ESTIMATED COST

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FILE COVERS 1907 - 30 Oct 2008 VOL 149 ISS 18 FILE LAST UPDATED: 29 Oct 2008 (20081029/ED)

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=> s 13/prep 15464 L3 4660528 PREP/RL L4 1550 L3/PREP

(L3 (L) PREP/RL)

=> file reg

COST IN U.S. DOLLARS SINCE FILE TOTAL

ENTRY SESSION 2.69 187.24

FULL ESTIMATED COST 2.69

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L5 STRUCTURE UPLOADED

=> s 15

SAMPLE SEARCH INITIATED 17:37:59 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 867 TO ITERATE

100.0% PROCESSED 867 ITERATIONS 18 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 15574 TO 19106

PROJECTED ANSWERS: 106 TO 614

L6 18 SEA SSS SAM L5

=> s 15 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 177.90 U.S. DOLLARS DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y

FULL SEARCH INITIATED 17:38:03 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 17307 TO ITERATE

100.0% PROCESSED 17307 ITERATIONS 329 ANSWERS

SEARCH TIME: 00.00.01

L7 329 SEA SSS FUL L5

=> file hcaplus

COST IN U.S. DOLLARS SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST 179.28 366.52

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=> d his

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L1 STRUCTURE UPLOADED

L2 50 S L1

L3 9905 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 17:36:25 ON 30 OCT 2008 L4 1550 S L3/PREP

FILE 'REGISTRY' ENTERED AT 17:36:34 ON 30 OCT 2008

L5 STRUCTURE UPLOADED

L6 18 S L5

L7 329 S L5 FULL

FILE 'HCAPLUS' ENTERED AT 17:38:12 ON 30 OCT 2008

=> s 17/rct

822 L7

3163746 RCT/RL

L8 684 L7/RCT

(L7 (L) RCT/RL)

 \Rightarrow s 18 and 14

L9 27 L8 AND L4

=> s 19 and shapiro, r?/au 857 SHAPIRO, R?/AU

L10 1 L9 AND SHAPIRO, R?/AU

=> d l10, ibib abs hitstr, 1

L10 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:696875 HCAPLUS

DOCUMENT NUMBER: 143:155307

TITLE: Process for the manufacture of 2,3-dichloropyridine

INVENTOR(S): Shapiro, Rafael

PATENT ASSIGNEE(S): E.I. Dupont de Nemours and Company, USA

SOURCE: PCT Int. Appl., 23 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	TENT	NO.			KIN:	D	DATE			APPL	ICAT	ION	ΝΟ.		D.	ATE			
WO	2005	0708	88		A2		2005	0804		WO 2	005-	US24	62		2	0050	121		
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,		
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,		
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	ΚP,	KR,	KΖ,	LC,		
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NΙ,		
		NO,	NΖ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,		
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	2006				A		2007				006-					0060			
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PRIORITY APPLN. INFO.:

US 2004-539068P P 20040123 WO 2005-US2462 W 20050121

OTHER SOURCE(S): CASREACT 143:155307

A method for preparing 2,3-dichloropyridine is disclosed in which 3-amino-2-chloropyridine is contacted with an alkali metal nitrite in the presence of aqueous hydrochloric acid to form a diazonium salt; and the diazonium salt is subsequently decomposed in the presence of copper catalyst wherein at least about 50% of the copper is the copper(II) oxidation state.

2402-77-9P, 2,3-Dichloropyridine ΙT RL: IMF (Industrial manufacture); PREP (Preparation) (process for the manufacture of 2,3-dichloropyridine)

RN 2402-77-9 HCAPLUS

Pyridine, 2,3-dichloro- (CA INDEX NAME) CN

ΙT 94770-75-9P RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (process for the manufacture of 2,3-dichloropyridine) RN

94770-75-9 HCAPLUS

CN 3-Pyridinamine, 2-chloro-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

ΙT 6298-19-7, 3-Amino-2-chloropyridine RL: RCT (Reactant); RACT (Reactant or reagent) (process for the manufacture of 2,3-dichloropyridine) RN 6298-19-7 HCAPLUS 3-Pyridinamine, 2-chloro- (CA INDEX NAME) CN

=> file req SINCE FILE COST IN U.S. DOLLARS TOTAL ENTRY SESSION FULL ESTIMATED COST 16.21 382.73 SINCE FILE DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) TOTAL SESSION ENTRY CA SUBSCRIBER PRICE -0.80-0.80

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                    NITRINE-TDC/CN
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E.2
              1 --> NITRITE/CN
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1 NITRITE (15N18O21-)/C
E4
E5
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E.6
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                  NITRITE (15NO21-)/CN
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NITRITE (CYTOCHROME) REDUCTASE/CN
E.7
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E.8
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Ε9
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E10
                   NITRITE (NO1801-)/CN
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E11
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E12
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=> s e3
L11
              1 NITRITE/CN
=> file hcaplus
COST IN U.S. DOLLARS
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                                                                       TOTAL
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FULL ESTIMATED COST
                                                             5.61
                                                                     388.34
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL
ENTRY SESSION
0.00 -0.80

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=> s 111 L12 19225 L11

=> d his

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FILE 'REGISTRY' ENTERED AT 17:28:03 ON 30 OCT 2008

L1 STRUCTURE UPLOADED

L2 50 S L1

L3 9905 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 17:36:25 ON 30 OCT 2008 L4 1550 S L3/PREP

FILE 'REGISTRY' ENTERED AT 17:36:34 ON 30 OCT 2008

L5 STRUCTURE UPLOADED

L6 18 S L5

L7 329 S L5 FULL

FILE 'HCAPLUS' ENTERED AT 17:38:12 ON 30 OCT 2008

L8 684 S L7/RCT

L9 27 S L8 AND L4

L10 1 S L9 AND SHAPIRO, R?/AU

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FILE 'REGISTRY' ENTERED AT 17:40:46 ON 30 OCT 2008
              E NITRITE/CN
L11
              1 S E3
     FILE 'HCAPLUS' ENTERED AT 17:40:58 ON 30 OCT 2008
L12
         19225 S L11
=> s 112 and 19
            0 L12 AND L9
=> s 19 and 112
L14 0 L9 AND L12
\Rightarrow d 19, ibib abs hitstr, 1-27
    ANSWER 1 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:
                    2008:590684 HCAPLUS
DOCUMENT NUMBER:
                        148:561908
TITLE:
                        Preparation of heterocyclic sulfonamide compounds as
                        Edg-1 antagonists useful in the treatment of cancer
INVENTOR(S):
                         Grewal, Gurmit; Hennessy, Edward; Kamhi, Victor; Li,
                         Danyang; Lyne, Paul; Oza, Vibha; Saeh, Jamel Carlos;
                         Su, Qibin; Yang, Bin
                         Astrazeneca AB, Swed.; Astrazeneca Uk Limited
PATENT ASSIGNEE(S):
SOURCE:
                        PCT Int. Appl., 215 pp.
                        CODEN: PIXXD2
                        Patent
DOCUMENT TYPE:
                        English
LANGUAGE:
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
                                          APPLICATION NO.
    PATENT NO.
                       KIND DATE
                                                                 DATE
     _____
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                               _____
                                           _____
                        A1 20080515 WO 2007-GB4267
     WO 2008056150
                                                                  20071108
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA,
             CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI,
             GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG,
             KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
             MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL,
             PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN,
             TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
             GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
             BY, KG, KZ, MD, RU, TJ, TM
                                            US 2006-865364P P 20061110

US 2007-895699P P 20070319

US 2007-947795P P 20070703

US 2007-953838P P 20070803
PRIORITY APPLN. INFO.:
```

Updated Search

GΙ

OTHER SOURCE(S): MARPAT 148:561908

$$(R^1)_n$$
 A
 S
 NH
 N
 N
 R^4
 $(R^5)_m$
 R^4

AB The invention relates to chemical compds. of formula I (wherein ring A is carbocyclyl or heterocyclyl; n = 0-5; R1 is halo, nitro, cyano, etc.; R2 is C1-6alkyl, carbocyclyl, etc.; R3 is H, C1-6alkyl, etc.; or alternatively, R2 and R3 together may form part of C3-6carbocyclic ring; R4 is C1-6alkyl or carbocyclyl; Ring D is a 5-7 membered ring; R5 is a substituent on carbon and is halo, nitro, cyano, etc.; m is 0-5) or pharmaceutically acceptable salts thereof, which possess Edg-1 antagonistic activity and are accordingly useful for their anti-cancer activity and thus in methods of treatment of the human or animal body. The invention also relates to processes for the manufacture of said chemical compds., to pharmaceutical compns. containing them and to their use in the manufacture of medicaments for use in the production of an anti-cancer effect

in a warm-blooded animal, such as man. Example compound II, prepared by reacting the appropriate sulfonyl chloride with $[1-[1-(\text{cyclopropylmethyl})-1\text{H-benzimidazol-2-yl}] \text{ ethyl}] \text{ amine, caused 100\% inhibition of Edg-1 receptor activity at 3.70 μM in an in vitro cell based receptor activation assay.}$

IT 1025506-76-6P, 5,6-Dichloro-N-[(1R)-1-[1-ethyl-6-(trifluoromethyl) 1H-benzimidazol-2-yl]ethyl]pyridine-3-sulfonamide
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation);
 USES (Uses)

(drug candidate; preparation of heterocyclic sulfonamide compds. as Edg-1 antagonists useful in treatment of cancer)

RN 1025506-76-6 HCAPLUS

CN 3-Pyridinesulfonamide, 5,6-dichloro-N-[(1R)-1-[1-ethyl-6-(trifluoromethyl)-1H-benzimidazol-2-yl]ethyl]- (CA INDEX NAME)

Absolute stereochemistry.

IT 1025509-12-9P, 2-Chloro-N'-ethylpyridine-3,4-diamine
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation); RACT (Reactant or reagent)

(preparation of heterocyclic sulfonamide compds. as Edg-1 antagonists useful in treatment of cancer)

RN 1025509-12-9 HCAPLUS

CN 3,4-Pyridinediamine, 2-chloro-N4-ethyl- (CA INDEX NAME)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:490320 HCAPLUS

DOCUMENT NUMBER: 149:32173

TITLE: (Dimethoxy- and dihalopyridyl)boronic acids and highly

functionalized heteroarylpyridines by Suzuki

cross-coupling reactions

AUTHOR(S): Smith, Amy E.; Clapham, Kate M.; Batsanov, Andrei S.;

Bryce, Martin R.; Tarbit, Brian

CORPORATE SOURCE: Department of Chemistry, Durham University, Durham,

DH1 3LE, UK

SOURCE: European Journal of Organic Chemistry (2008), (8),

1458-1463

CODEN: EJOCFK; ISSN: 1434-193X Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 149:32173

GΙ

PUBLISHER:

AB (Dimethoxy- and dihalopyridyl)boronic acids, e.g., I, were synthesized by directed ortho-metalation reactions on the corresponding disubstituted pyridine precursor, followed by the reaction with triisopropyl borate (TPB) or tri-Me borate. The reactivity of the pyridylboronic acids with heteroaryl halides in Suzuki-Miyaura cross-coupling reactions has been evaluated. New highly functionalized heteroarylpyridine derivs., e.g., II, have thereby been obtained in moderate to high yields. The reaction of I and 3-amino-2-chloropyridine yielded the rare 5H-pyrrolo[2,3-b:4,5-b']dipyridine (i.e. 1,5-diazacarbazole) ring system III by sequential cross-coupling and intra-mol. cyclization reactions. The X-ray crystal structures are reported for the pyridylboronic acids.

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(crystal structure; preparation of heteroarylpyridines via ortho-metalation and substitution of disubstituted pyridines to generate corresponding pyridylboronic acids which undergo Suzuki-Miyaura cross-coupling with heteroaryl halides)

RN 951677-39-7 HCAPLUS

CN Boronic acid, B-(2,3-dichloro-4-pyridinyl)- (CA INDEX NAME)

IT 6298-19-7, 2-Chloro-3-aminopyridine

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of heteroarylpyridines via ortho-metalation and substitution of disubstituted pyridines to generate corresponding pyridylboronic acids which undergo Suzuki-Miyaura cross-coupling with heteroaryl halides)

RN 6298-19-7 HCAPLUS

CN 3-Pyridinamine, 2-chloro- (CA INDEX NAME)

IT 1031439-21-0P 1031439-23-2P 1031439-25-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of heteroarylpyridines via ortho-metalation and substitution of disubstituted pyridines to generate corresponding pyridylboronic acids which undergo Suzuki-Miyaura cross-coupling with heteroaryl halides)

RN 1031439-21-0 HCAPLUS

CN Quinoline, 3-(2,3-dichloro-4-pyridinyl)- (CA INDEX NAME)

RN 1031439-23-2 HCAPLUS

CN 2-Pyrimidinamine, 5-(2,3-dichloro-4-pyridinyl)- (CA INDEX NAME)

RN 1031439-25-4 HCAPLUS

CN 3,4'-Bipyridine, 2',3'-dichloro- (CA INDEX NAME)

REFERENCE COUNT: 73 THERE ARE 73 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:410542 HCAPLUS

DOCUMENT NUMBER: 146:422187

TITLE: Preparation of 9-azabicyclo[3.3.1]nonane derivatives

for therapeutic use as dopamine and serotonin reuptake

inhibitors

INVENTOR(S):
Bingham, Matilda Jane; Huggett, Margaret Jean;

Huggett, Mark; Kiyoi, Yasuko; Napier, Susan Elizabeth;

Nimz, Olaf

PATENT ASSIGNEE(S): N. V. Organon, Neth. SOURCE: PCT Int. Appl., 69pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

WO 2007039563 A1 20070412 WO 2006-EP66896 2006092 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CO, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, CO, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, FKR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MM, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, FRU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TUA, UG, US, UZ, VC, VN, ZA, ZM, ZW	
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, CG, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, FKR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MM, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, FRU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW	. <u> </u>
GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, FKR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MM, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, FRU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW	ЭН,
KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, M MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, FRU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TUA, UG, US, UZ, VC, VN, ZA, ZM, ZW	iD,
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RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TUA, UG, US, UZ, VC, VN, ZA, ZM, ZW	IN,
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GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, F	βΥ,
KG, KZ, MD, RU, TJ, TM	
CA 2623359 A1 20070412 CA 2006-2623359 2006092	
US 20070112019 A1 20070517 US 2006-541273 2006092	:9
EP 1934212 A1 20080625 EP 2006-793916 2006092	:9
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, I	
IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, F	•
MX 200804246 A 20080521 MX 2008-4246 2008032	
CN 101291931 A 20081022 CN 2006-80039124 2008042	
ORITY APPLN. INFO.: EP 2005-109123 A 2005093	
US 2005-721964P P 2005093	
WO 2006-EP66896 W 2006092	:9

OTHER SOURCE(S): MARPAT 146:422187

GΙ

AB 9-Azabicyclo[3.3.1]nonane derivs., such as I (R = H, alkyl; R1 = aryl,

heteroaryl; X = O, NH), were prepared for use in pharmaceutical compns. for the treatment or prevention of diseases or disorders for which the reuptake inhibition of one or more monoamine neurotransmitter contributes to the therapeutic effect, such as depression or pain. Thus, exo-3-(benzo[d]isothiazol-7-yloxy)-9-azabicyclo[3.3.1]nonane (II) was prepared in 53% yield by reacting endo-3-hydroxy-9-azabicyclo[3.3.1]nonane-9-carboxylic acid tert-Bu ester with benzo[d]isothiazol-7-ol using (4,4-dimethyl-1,1-dioxido-1,2,5-thiadiazolidin-2-yl)triphenylphosphonium in THF and heated to 140° for 10 min using microwave irradiation The prepared 9-azabicyclo[3.3.1]nonanes were assayed in vitro for inhibition of dopamine and serotonin uptake.

IT 934181-09-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 9-azabicyclo[3.3.1] nonane derivs. for therapeutic use as monoamine reuptake inhibitors)

RN 934181-09-6 HCAPLUS

CN 9-Azabicyclo[3.3.1]nonane, 3-[(5,6-dichloro-2-pyridinyl)oxy]-, (3-exo)- (CA INDEX NAME)

Relative stereochemistry.

IT 24525-63-1P 34392-85-3P 83732-68-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(preparation of 9-azabicyclo[3.3.1]nonane derivs. for therapeutic use as monoamine reuptake inhibitors)

RN 24525-63-1 HCAPLUS

CN 2(1H)-Pyridinone, 5,6-dichloro- (CA INDEX NAME)

RN 34392-85-3 HCAPLUS

CN 3-Pyridinamine, 2-chloro-6-methoxy- (CA INDEX NAME)

RN 83732-68-7 HCAPLUS

CN Pyridine, 2,3-dichloro-6-methoxy- (CA INDEX NAME)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:476236 HCAPLUS

DOCUMENT NUMBER: 145:167209

TITLE: Design of potent, orally available antagonists of the

transient receptor potential vanilloid 1.

Structure-activity relationships of 2-piperazin-1-yl-1H-benzimidazoles

AUTHOR(S): Ognyanov, Vassil I.; Balan, Chenera; Bannon, Anthony

W.; Bo, Yunxin; Dominguez, Celia; Fotsch, Christopher;

Gore, Vijay K.; Klionsky, Lana; Ma, Vu V.; Qian, Yi-Xin; Tamir, Rami; Wang, Xianghong; Xi, Ning; Xu, Shimin; Zhu, Dawn; Gavva, Narender R.; Treanor, James

J. S.; Norman, Mark H.

CORPORATE SOURCE: Department of Chemistry Research and Discovery and

Department of Neuroscience, Amgen Inc., Thousand Oaks,

CA, 91320-1799, USA

SOURCE: Journal of Medicinal Chemistry (2006), 49(12),

3719-3742

CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 145:167209

GΙ

The vanilloid receptor-1 (VR1 or TRPV1) is a membrane-bound, nonselective AΒ cation channel that is predominantly expressed by peripheral neurons sensing painful stimuli. TRPV1 antagonists produce antihyperalgesic effects in animal models of inflammatory and neuropathic pain. The synthesis and the structure-activity relationships of a series of 2-(4-pyridin-2-ylpiperazin-1-yl)-1H-benzo[d]imidazoles I [R1 = H, Me3SiCH2CH2OCH2, PhCH2; R2 = F, Cl, Br, F3C, Me, CN, Me3C, Me02C, etc.; R3 = H, 4-(2-thiazolyl), 4-(4-pyridyl), 5-(4-F3CC6H4), etc.; R4 = H, Me; R5 =H, H2N, MeCHOH, H2C:CH, etc.; R6 = H, C1, F3C, etc.] and analogs as novel TRPV1 antagonists have been described. I [R1 = H; R2 = F3C; R3 = 4-(3,4,5-F3C6H2); R4 = (R)-Me; R5 = HOCH2CHOH; R6 = C1; (II)] was among the most potent analogs in this series. This compound was orally bioavailable in rats and was efficacious in blocking capsaicin-induced flinch in rats in a dose-dependent manner. II also reversed thermal hyperalgesia in a model of inflammatory pain, which was induced by complete Freund's adjuvant (CFA).

117519-09-2, 3-Amino-2-chloro-6-(trifluoromethyl)pyridine ΤТ RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of [(pyridyl)piperazinyl]benzimidazoles and analogs as potent, orally available antagonists of the transient receptor potential vanilloid 1 and analgesics)

117519-09-2 HCAPLUS RN

3-Pyridinamine, 2-chloro-6-(trifluoromethyl)- (CA INDEX NAME) CN

54127-29-6P 56055-54-0P 71690-05-6P ΤТ 75291-84-8P 162327-73-3P 683243-82-5P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of [(pyridyl)piperazinyl]benzimidazoles and analogs as potent, orally available antagonists of the transient receptor potential vanilloid 1 and analgesics) RN 54127-29-6 HCAPLUS

CN 3-Pyridinecarbonyl chloride, 5,6-dichloro- (CA INDEX NAME)

$$C1$$
 $C-C1$
 $C-C1$

56055-54-0 HCAPLUS RN

CN 3-Pyridinecarboxylic acid, 5,6-dichloro-, methyl ester (CA INDEX NAME)

RN 71690-05-6 HCAPLUS

CN 3-Pyridinecarboxaldehyde, 5,6-dichloro- (CA INDEX NAME)

RN 75291-84-8 HCAPLUS

CN 3-Pyridinecarboxamide, 5,6-dichloro- (CA INDEX NAME)

$$C1$$
 $C-NH_2$
 C

RN 162327-73-3 HCAPLUS

CN 3-Pyridinecarboxamide, 5,6-dichloro-N-methoxy-N-methyl- (CA INDEX NAME)

RN 683243-82-5 HCAPLUS

CN 3-Pyridinemethanol, 5,6-dichloro- α -methyl- (CA INDEX NAME)

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 5 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:36034 HCAPLUS

DOCUMENT NUMBER: 145:210950

TITLE: Effects of halogen introduction at the C-5 position of

the imidacloprid pyridine ring upon insecticidal

activity

AUTHOR(S): Kagabu, Shinzo; Ito, Nakako; Imai, Rie; Hieta, Yosuke;

Nishimura, Keiichiro

CORPORATE SOURCE: Department of Chemistry, Faculty of Education, Gifu

University, Gifu, 501-1193, Japan

SOURCE: Journal of Pesticide Science (Tokyo, Japan) (2005),

30(4), 409-413

CODEN: JPSTCF; ISSN: 1348-589X

PUBLISHER: Pesticide Science Society of Japan

DOCUMENT TYPE: Journal LANGUAGE: English

GΙ

AB Following a recent report of unexpectedly high affinity of 5-azidoimidacloprid to insect nicotinic acetylcholine receptor, derivs. with four halogen atoms and cyano and nitro were prepared, and the insecticidal effect was evaluated in American cockroaches by injection alone and with synergists piperonyl butoxide and propargyl Pr benzenephosphonate. The log (1/MLD) value, the minimal LD in mol, was 8.96 for imidacloprid (I, X = H) and 8.82 for the fluoro derivative (I, X = F). The other derivs. were less active. The synergists enhanced the activity of all compds. The log (1/MLD) value for 5-azidoimidacloprid, 7.37 without or 8.18 with synergists, was not striking in this experiment IT 135769-74-3P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(effects of halogen introduction at C-5 position of imidacloprid pyridine ring upon insecticidal activity)

RN 135769-74-3 HCAPLUS

CN 1H-Imidazol-2-amine, 1-[(5,6-dichloro-3-pyridinyl)methyl]-4,5-dihydro-N-nitro- (CA INDEX NAME)

IT 34552-13-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(effects of halogen introduction at C-5 position of imidacloprid pyridine ring upon insecticidal activity)

RN 34552-13-1 HCAPLUS

CN 3-Pyridinamine, 2-chloro-5-methyl- (CA INDEX NAME)

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:729612 HCAPLUS

DOCUMENT NUMBER: 143:211723

TITLE: Preparation of 3-benozylaminobenzamide derivatives and

related amides derivatives as insecticides

INVENTOR(S): Yoshida, Kei; Wakita, Takeo; Katsuta, Hiroyuki; Kai,

Akiyoshi; Chiba, Yutaka; Takahashi, Kiyoshi; Kato, Hiroko; Kawahara, Nobuyuki; Nomura, Michikazu; Daido,

Hidenori; Maki, Junji; Banba, Shinichi

PATENT ASSIGNEE(S): Mitsui Chemicals, Inc., Japan

SOURCE: PCT Int. Appl., 264 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

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                          A1 20050811 WO 2004-JP19770
     WO 2005073165
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
             RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
             MR, NE, SN, TD, TG
                                  20050811
                                             AU 2004-315003
     AU 2004315003
                          A1
                                                                       20041224
     CA 2554437
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                                             CA 2004-2554437
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     EP 1714958
                                 20061025
                                            EP 2004-808120
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                                                                       20041224
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS
     CN 1926094
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                                 20070307
                                             CN 2004-80042513
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     BR 2004018471
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                                 20070605
                                              BR 2004-18471
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                         A 20070713
A 20061030
B1 20080905
A 20080611
     IN 2006DN04275
                                              IN 2006-DN4275
                                                                       20060725
     MX 2006PA08526
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                                                                       20060728
     KR 857312
                                              KR 2006-716969
                                                                       20060823
                                              KR 2008-712145
     KR 2008052692
                                                                       20080521
                                              JP 2004-19438 A 20040128

JP 2004-48031 A 20040224

JP 2004-209002 A 20040715

WO 2004-JP19770 W 20041224

KR 2006-716969 A3 20060823
PRIORITY APPLN. INFO.:
OTHER SOURCE(S): MARPAT 143:211723
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AB The invention aims at providing highly effective insecticides. Amide compds. represented by the general formula (I) (wherein A1, A2, A3, A4 = C, N, or oxidized N; R1, R2 = H, each optionally substituted alkyl or C1-4 alkylcarbonyl; G1, G2 = O, S; X's may be the same or different from each other and are each hydrogen, halogeno, C1-3 alkyl, or trifluoromethyl; n = an integer of 0 to 4; Q1 = optionally substituted Ph, naphthyl, or heterocyclic group; Q2 = Ph or heterocyclic group having one or more substituents, at least one of the substituents being C1-4 haloalkoxy, C2-6

perfluoroalkyl, C1-6 perfluoroalkylthio, C1-6 perfluoroalkylsulfinyl, or C1-6 perfluoroalkylsulfonyl) are prepared. Thus, 0.09 g benzoyl chloride was added to a stirred solution of 0.25 g.

N-(2,6-dimethyl-4-heptafluoroisopropylphenyl)-3-aminobenzamide and 0.06 g pyridine in 5 mL THF and stirred at room temperature for 1 h to give 92% N-(2,6-dimethyl-4-heptafluoroisopropylphenyl)-3-(benzoylamino)benzamide (II). II at 100 ppm controlled \geq 70% 2nd-instar larvae of Spodoptera litura and Plutella xylostella on cabbage leaves.

IT 862131-14-4P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 3-benozylaminobenzamide and related amide derivs. as insecticides)

RN 862131-14-4 HCAPLUS

CN 3-Pyridinecarboxamide, 5,6-dichloro-N-[3-[[[2,6-dimethyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl]amino]carbonyl]phenyl]- (CA INDEX NAME)

IT 862132-96-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(preparation of 3-benozylaminobenzamide and related amide derivs. as insecticides)

RN 862132-96-5 HCAPLUS

CN 3-Pyridinamine, 2-chloro-4-methyl-6-[2,2,2-trifluoro-1-(trifluoromethyl)ethoxy]- (CA INDEX NAME)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:696875 HCAPLUS

DOCUMENT NUMBER: 143:155307

TITLE: Process for the manufacture of 2,3-dichloropyridine

INVENTOR(S): Shapiro, Rafael

PATENT ASSIGNEE(S): E.I. Dupont de Nemours and Company, USA

SOURCE: PCT Int. Appl., 23 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.					KIN:		DATE			APPL	ICAT	ION	NO.		D	ATE	
	WO	2005	0708	88				2005	0804		WO 2	2005-	 US24	 62		2	0050	121
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KΡ,	KR,	KΖ,	LC,
			LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	ΝI,
			NO,	NΖ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,
			ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW
		RW:	BW,	GH,	GM,	KΕ,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,
			AΖ,	BY,	KG,	KΖ,	MD,	RU,	ΤJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,
			EE,	ES,	FΙ,	FR,	GB,	GR,	HU,	IE,	IS,	ΙΤ,	LT,	LU,	MC,	NL,	PL,	PT,
			RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	$ ext{ML}$,
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	ΕP	1706						2006									0050	
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		2007						2007				2006-					0060	
		2006				A		2007				2006-					0060	
		2006				А		2006	0831			2006-					0060	
PRIOR	(TT)	APP.	LN.	TNF,O	.:							2004-						
											WO 2	2005-	USZ4	62		w 2	0050	$\perp \angle \perp$

OTHER SOURCE(S): CASREACT 143:155307

AB A method for preparing 2,3-dichloropyridine is disclosed in which 3-amino-2-chloropyridine is contacted with an alkali metal nitrite in the presence of aqueous hydrochloric acid to form a diazonium salt; and the diazonium salt is subsequently decomposed in the presence of copper catalyst wherein at least about 50% of the copper is the copper(II) oxidation state.

IT 2402-77-9P, 2,3-Dichloropyridine

RL: IMF (Industrial manufacture); PREP (Preparation) (process for the manufacture of 2,3-dichloropyridine)

RN 2402-77-9 HCAPLUS

CN Pyridine, 2,3-dichloro- (CA INDEX NAME)

IT 94770-75-9P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP

(Preparation); RACT (Reactant or reagent)

(process for the manufacture of 2,3-dichloropyridine)

RN 94770-75-9 HCAPLUS

CN 3-Pyridinamine, 2-chloro-, hydrochloride (1:1) (CA INDEX NAME)

● HCl

IT 6298-19-7, 3-Amino-2-chloropyridine

RL: RCT (Reactant); RACT (Reactant or reagent)

(process for the manufacture of 2,3-dichloropyridine)

RN 6298-19-7 HCAPLUS

CN 3-Pyridinamine, 2-chloro- (CA INDEX NAME)

L9 ANSWER 8 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:238994 HCAPLUS

DOCUMENT NUMBER: 142:316820

TITLE: Preparation of hetero-bicyclic fused thieno-pyran

compounds as antibacterial, antiviral, antitumor, and

pharmaceutically active agents

INVENTOR(S): Koul, Anil; Klebl, Bert; Mueller, Gerhard; Missio,

Andrea; Schwab, Wilfried; Hafenbradl, Doris; Neumann, Lars; Sommer, Marc-Nicola; Mueller, Stefan; Hoppe, Edmund; Freisleben, Achim; Backes, Alexander; Hartung, Christian; Felber, Beatrice; Zech, Birgit; Engkvist, Ola; Keri, Gyoergy; Oerfi, Laszlo; Banhegyi, Peter; Greff, Zoltan; Horvath, Zoltan; Varga, Zoltan; Marko, Peter; Pato, Janos; Szabadkai, Istvan; Szekelyhidi,

Zsolt; Waczek, Frigyes

PATENT ASSIGNEE(S): Axxima Pharmaceuticals A.-G., Germany

SOURCE: PCT Int. Appl., 259 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.		KIND	DATE	ATE APPLICATION NO. DATE						
WO 20050238 WO 20050238				WO 2			20040910			
CN, GE, LK, NO, TJ, RW: BW, AZ, EE,	CO, CR, GH, GM, LR, LS, NZ, OM, TM, TN, GH, GM, BY, KG, ES, FI, SK, TR,	CU, CZ HR, HU LT, LU PG, PH TR, TT KE, LS KZ, MD FR, GB	, AU, AZ, , DE, DK, , ID, IL, , LV, MA, , PL, PT, , TZ, UA, , MW, MZ, , RU, TJ, , GR, HU, , CF, CG,	DM, DZ, IN, IS, MD, MG, RO, RU, UG, US, NA, SD, TM, AT, IE, IT,	EC, EE, JP, KE, MK, MN, SC, SD, UZ, VC, SL, SZ, BE, BG, LU, MC,	EG, KG, MW, SE, VN, TZ, CH, NL,	ES, 1 KP, 1 MX, 1 SG, 2 YU, 2 UG, 2 CY, 0 PL, 1	FI, GB, KR, KZ, MZ, NA, SK, SL, ZA, ZM, ZM, ZW, CZ, DE, PT, RO,	GD, LC, NI, SY, ZW AM, DK, SE,	
AU 20042703 CA 2572750 EP 1670804 R: AT, IE, US 20070275 PRIORITY APPLN.	BE, CH, SI, LT, 962 INFO.:	A1 A2 DE, DK LV, FI A1	20050317 20060621 , ES, FR, , RO, MK, 20071129	CA 2 EP 2 GB, GR, CY, AL, US 2 EP 2 US 2 EP 2 US 2 EP 2 US 2	004-2572 004-7869 IT, LI, TR, BG, 007-5971 003-2061 003-5026 004-4891 004-5513 004-1281 004-5770 004-EP10	750 34 LU, CZ, 20 6 06P 41P 4 43P 161	NL, EE, AAPAAPAA	20040 20040 SE, MC, HU, PL, 20070 20030 20040 20040 20040 20040	910 910 PT, SK, HR 306 910 915 302 310 528 607	
OTHER SOURCE(S): GI		CASREA	CT 142:31	6820; MA	RPAT 142	:316	820			

Described are hetero-bicyclic compds. such as 4,5,6,7-tetrahydro-benzo[b]thiophene-3-carboxylic acid amides, 4,7-dihydro-5H-thieno[2,3-c]thiopyran-3-carboxylic acid amides, 4,7-dihydro-5H-thieno[2,3-c]pyran-3-carboxylic acid amides, or benzo[b]thiophene-3-carboxylic acid amides I, wherein X1 is S, O, NH, substituted nitrogen; Y1-Y4 form with the ring containing X1 a hetero-bicyclic ring system; R1 is H, alkyl, cycloalkyl, heterocycle, alkynyl, substituted Ph, acyl, benzyl; R2 is amide, thioamide, sulfonamide, ester, sulfonyl; R3 is H, acyl, thio-ketone, sulfonyl, amide, thio-amide, diketone-amide, ester, thio-ester; and pharmaceutically acceptable salts thereof, the use of these derivs. for the prophylaxis and/or treatment of various diseases such as infectious diseases, including mycobacteria-induced infections and

opportunistic diseases, prion diseases, immunol. diseases, autoimmune diseases, bipolar and clin. disorders, cardiovascular diseases, cell proliferative diseases, diabetes, inflammation, transplant rejections, erectile dysfunction, neurodegenerative diseases and stroke, as well as compns. containing at least one hetero-bicyclic compound and/or pharmaceutically

acceptable salts thereof. Furthermore, reaction procedures for the synthesis of the hetero-bicyclic compound are disclosed. Thus, benzo[b]thiophen-carboxylic acid amide II was prepared and tested in vitro for its inhibitory effect on mycobacterial protein kinase G (IC50 = 0.1-1.0 μ M).

IT 848327-78-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of heterobicyclic fused thienopyran compds. as antibacterial antiviral antitumor and pharmaceutically active agents)

RN 848327-78-6 HCAPLUS

CN 5H-Thieno[2,3-c]pyran-3-carboxamide,

2-[[[(5,6-dichloro-3-pyridinyl)amino]carbonyl]amino]-4,7-dihydro- (CA INDEX NAME)

IT 6298-19-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of heterobicyclic fused thienopyran compds. as antibacterial antiviral antitumor and pharmaceutically active agents)

RN 6298-19-7 HCAPLUS

CN 3-Pyridinamine, 2-chloro- (CA INDEX NAME)

L9 ANSWER 9 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:238985 HCAPLUS

DOCUMENT NUMBER: 142:316863

TITLE: Preparation of heteroaryl fused pyridines, pyrazines,

and pyrimidines as CRF-1 receptor ligands

INVENTOR(S): Ge, Ping; Horvath, Raymond F.; Zhang, Lu Yan;

Yamaguchi, Yasuchika; Kaiser, Bernd; Zhang, Xuechun;

Zhang, Suoming; Zhao, He; John, Stanly; Moorcroft,

Neil; Shutske, Greg

PATENT ASSIGNEE(S): Neurogen Corporation, USA; Aventis Pharmaceuticals

Inc.

SOURCE: PCT Int. Appl., 290 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	KINI				APPLICATION NO.													
WO	2005 2005	0238	06		A2		2005	0317	,							0040	903	
	₩:	AE, CN, GE, LK, NO, TJ, BW, AZ,	AG, CO, GH, LR, NZ, TM, GH, BY,	AL, CR, GM, LS, OM, TN, GM, KG,	AM, CU, HR, LT, PG, TR, KE, KZ,	AT, CZ, HU, LU, PH, TT, LS, MD,	AU, DE, ID, LV, PL, TZ, MW, RU,	AZ, DK, IL, MA, PT, UA, MZ, TJ,	BA, DM, IN, MD, RO, UG, NA, TM,	DZ, IS, MG, RU, US, SD, AT,	EC, JP, MK, SC, UZ, SL, BE,	EE, KE, MN, SD, VC, SZ, BG,	EG, KG, MW, SE, VN, TZ, CH,	ES, KP, MX, SG, YU, UG, CY,	BZ, FI, KR, MZ, SK, ZA, ZM, CZ, PT,	GB, KZ, NA, SL, ZM, ZW, DE,	GD, LC, NI, SY, ZW AM, DK,	
		SI,	•	TR,	•			•				•		•	ML,			
AU	2004	,	•		A1		2005	0317		AU 2	004-	2707	13		2	0040	903	
CA	2537	829	_		A1		2005	0317		CA 2	004-	2537	829		2	0040	903	
	2005																	
EP	1680	424			A2		2006	0719		EP 2	004-	7885	85		2	0040	903	
	R:	,	,	,	,			,	,	,		,	,	,	SE, HU,	,		HR
BR	2004	0140	87		A		2006	1031	•	BR 2	004-	1408	7		2	0040	903	
CN	2004 1878	773			Α		2006	1213	1	CN 2	004-	8003	2703		2	00409	903	
JP	2007	5042	71		Τ		2007	0301		JP 2	006-	5262:	10		2	00409	903	
MX	2006	PA02.	556		Α		2006	1030]	MX 2	006-	PA25.	56		2	0060	303	
	2006																	
	2006				A1		2006	0907										
PRIORIT	Y APP	LN.	INFO	.:						JS 2	004-	9338	34		P 2 A1 2 W 2	0040	903	
OTHER SO	DURCE	(S):			CASI	REAC	T 14	2:31	6863	; MA	RPAT	142	:316	863				

GΙ

Substituted heteroaryl fused pyridine, pyrazine, and pyrimidine compds. I, AΒ wherein E is a single bond, O, S(O)m, substituted amine, alkylidene; m is 0-2; Ar is chosen from: substituted Ph, substituted 1-naphthyl and 2-naphthyl, substituted heteroaryl, said heteroaryl having from 1 to 3 rings, 5 to 7 ring members in each ring and, in at least one of said rings, from 1 to about 3 heteroatoms selected from the group consisting of N, O, and S; R is oxygen or absent; Z1 is substituted alkylidene; Z2 is nitrogen, oxygen, sulfur, substituted alkylidene, substituted amine; Z3 is nitrogen, oxygen, sulfur, sulfoxide, sulfone, substituted alkylidene; Z4 and Z5 are independently substituted alkylidene or substituted amine, that act as selective modulators of CRF-1 receptors are provided. These compds. are useful in the treatment of a number of CNS and peripheral disorders, particularly stress, anxiety, depression, cardiovascular disorders, and eating disorders. Methods of treatment of such disorders and well as packaged pharmaceutical compns. are also provided. Compds. of the invention are also useful as probes for the localization of CRF receptors and as stds. in assays for CRF receptor binding. Methods of using the compds. in receptor localization studies are given. Thus, pyrrolo-pyrazine II was prepared and tested as selective modulators of CRF-1 receptors. This method includes inhibiting the binding of CRF to CRF receptors in vivo, e.g., in a patient given an amount of I that would be sufficient to inhibit the binding of CRF to CRF receptors in vitro. Compds. of the invention are useful in treating a variety of conditions including affective disorders, anxiety disorders, stress disorders, eating disorders, and drug addiction. Affective disorders include all types of depression, bipolar disorder, cyclothymia, and dysthymia. Anxiety disorders include generalized anxiety disorder, panic, phobias and obsessive-compulsive disorder. Stress-related disorders include post-traumatic stress disorder, hemorrhagic stress, stress-induced psychotic episodes, psychosocial dwarfism, stress headaches, stress-induced immune systems disorders such as stress-induced fever, and stress-related sleep disorders. Eating disorders include anorexia nervosa, bulimia nervosa, and obesity. The most preferred compds. of the invention are suitable for pharmaceutical use in treating human patients. Preferably, administration of such preferred compds. of the invention at certain doses (i.e., doses yielding therapeutically effective in vivo concns. or preferably doses of 10, 50, 100, 150, or 200 mg/kg administered parenterally or preferably orally) does not result in prolongation of heart QT intervals.

IT 34552-13-1P 55933-92-1P 848365-58-2P 848366-55-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of heteroaryl fused pyridines, pyrazines, and pyrimidines as CRF-1 receptor ligands)

RN 34552-13-1 HCAPLUS

CN 3-Pyridinamine, 2-chloro-5-methyl- (CA INDEX NAME)

RN 55933-92-1 HCAPLUS

CN 2-Pyridinamine, 3,5,6-trichloro-N-methyl- (CA INDEX NAME)

RN 848365-58-2 HCAPLUS

CN 3-Pyridinamine, 2-chloro-6-[2-methoxy-4-(trifluoromethoxy)phenyl]-5-methyl-(CA INDEX NAME)

RN 848366-55-2 HCAPLUS

CN 2-Pyridinamine, 3,5,6-trichloro-N-(3-ethyl-2-penten-1-yl)-N-methyl- (CA INDEX NAME)

$$\begin{array}{c|c} \text{Cl} & \\ & \text{N} \\ & \text{N-CH}_2\text{-CH} \end{array} \\ \text{Cl} & \\ & \text{Me} \\ \end{array}$$

L9 ANSWER 10 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:354920 HCAPLUS

DOCUMENT NUMBER: 140:375171

TITLE: Preparation of benzimidazoles as vanilloid receptor

ligands

INVENTOR(S): Balan, Chenera; Bo, Yunxin; Dominguez, Celia; Fotsch,

Christopher H.; Gore, Vijay K.; Ma, Vu Van; Norman, Mark H.; Ognyanov, Vassil I.; Qian, Yi-xin; Wang,

Xianghong; Xi, Ning; Xu, Shimin

PATENT ASSIGNEE(S): Amgen Inc., USA

SOURCE: PCT Int. Appl., 259 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.						D	DATE			APP	LICAT	ION I	NO.		D.	ATE	
WO	2004	0355	 49		A1	_	2004	0429		WO	2003-	 US32	 823		2	0031	016
	W:	ΑE,	AG,	AL,	ΑM,	ΑT,	ΑU,	ΑZ,	BA,	BB	, BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC	, EE,	EG,	ES,	FI,	GB,	GD,	GE,
		GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP	, KE,	KG,	KP,	KR,	KΖ,	LC,	LK,
		LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK	, MN,	MW,	MX,	MZ,	NO,	NZ,	OM,
		PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE	, SG,	SK,	SL,	SY,	ΤJ,	TM,	TN,
		TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN	, YU,	ZA,	ZM,	ZW			
	RW:	GH,	GM,	ΚE,	LS,	MW,	${ m MZ}$,	SD,	SL,	SZ	, TZ,	UG,	ZM,	ZW,	ΑM,	ΑZ,	BY,
		KG,	KΖ,	MD,	RU,	ΤJ,	TM,	ΑT,	BE,	ВG	, СН,	CY,	CZ,	DE,	DK,	EE,	ES,
		FΙ,	FR,	GB,	GR,	HU,	ΙE,	ΙΤ,	LU,	MC	, NL,	PT,	RO,	SE,	SI,	SK,	TR,
		BF,	ΒJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ	, GW,	ML,	MR,	NE,	SN,	TD,	ΤG
CA	2501	539			A1		2004	0429		CA	2003-	2501	539		2	0031	016
AU	2003	3014	36		A1	A1 20040504 AU 2003-301436 2 A1 20040805 US 2003-688246 2							2	0031	016		
US	2004	0152	690		A1		2004	0805		US	2003-	6882	46		2	0031	016
EP	1551	811			A1		2005	0713		EΡ	2003-	8090	75		2	0031	016
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	, IT,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FΙ,	RO,	MK,	CY,	AL	, TR,	BG,	CZ,	EE,	HU,	SK	
JP	2006	5055	70		T		2006	0216		JΡ	2004-	5453	82		2	0031	016
MX	2005	PA03	948		Α		2005	0617		MX	2005-	PA39	48		2	0050	413
AU	2008	2022	57		A1		2008	0612		AU	2008-	2022	57		2	0800	521
IORIT:	Y APP	LN.	INFO	.:						US	2002-	4197	91P]	P 2	0021	017
										AU	2003-	3014	36	i	A3 2	0031	016
										WO	2003-	US32	823	Ţ	W 2	0031	016
JED CO	JIID CE	/C1.			MADI	יי עכ	1/0.	2751	71								

OTHER SOURCE(S): MARPAT 140:375171

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AB

$$\begin{array}{c|c}
F & E & N & D \\
C & N & B & C - R^2
\end{array}$$

$$F3C \xrightarrow{N} N \qquad C1 \qquad II$$

un/partially/saturated C1-C3 chain, with provisos; A, C = independently N, CH and derivs. with at least one of A and C is N; E, F, G, H = independentlyN, CH and derivs.; R1 = H, (CH2)mR3 and derivs.; m = 0.1 or 2; R3 =independently (un) substituted un/partially/saturated 5, 6, or 7-membered monocyclic, or 6-, 7-, 8-, 9-, 10- or 11-membered bicyclic ring containing 0-4heteroatoms selected from N, O, and S] were prepared as vanilloid receptor ligands (no data). For example, II was prepared by alkylation of piperazine with 2-chloro-6-trifluoromethyl-1H-benzimidazole(preparation given) in DMSO and reaction with 2,6-dichlorobenzyl bromide in DMF. Tests for capsaicin agonist and antagonist properties at vanilloid receptor type 1 are given (no data). I are useful in the treatment of vanilloid-receptor-mediated diseases, such as inflammatory or neuropathic pain and diseases involving sensory nerve function such as asthma, rheumatoid arthritis, osteoarthritis, inflammatory bowel disorders, urinary incontinence, migraine and psoriasis (no data). 54127-29-6P, 5,6-Dichloronicotinoyl chloride 56055-54-0P , 5,6-Dichloronicotinic acid methyl ester 71690-05-6P, 5,6-Dichloropyridine-3-carboxaldehyde 75291-84-8P, 5,6-Dichloronicotinamide 120800-05-7P, 1-(5,6-Dichloropyridin-3-yl)ethanone 144598-71-0P, (5,6-Dichloropyridin-3-ylmethyl) methylamine 162327-73-3P, 5,6-Dichloro-N-methoxy-N-methylnicotinamide 202395-72-0P, 2,3-Dichloro-5-(methoxymethyl)pyridine 287714-93-6P, 5-Bromomethyl-2,3-dichloropyridine 683243-82-5P 683243-85-8P, 2-(5,6-Dichloropyridin-3-ylmethyl) isoindole-1,3dione 683243-86-9P, N-(5,6-Dichloropyridin-3-ylmethyl) acetamide 683243-89-2P, N-(5,6-Dichloropyridin-3-ylmethyl)-N-methylacetamide 683243-92-7P, 2-(5,6-Dichloropyridin-3-yl)propan-2-ol RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (intermediate; preparation of benzimidazoles as vanilloid receptor ligands) 54127-29-6 HCAPLUS RN

Title compds. I [wherein B, D = independently substituted

3-Pyridinecarbonyl chloride, 5,6-dichloro- (CA INDEX NAME)

CN

$$C1$$
 $C-C1$
 $C-C1$

RN 56055-54-0 HCAPLUS

CN 3-Pyridinecarboxylic acid, 5,6-dichloro-, methyl ester (CA INDEX NAME)

RN 71690-05-6 HCAPLUS

CN 3-Pyridinecarboxaldehyde, 5,6-dichloro- (CA INDEX NAME)

RN 75291-84-8 HCAPLUS

CN 3-Pyridinecarboxamide, 5,6-dichloro- (CA INDEX NAME)

RN 120800-05-7 HCAPLUS

CN Ethanone, 1-(5,6-dichloro-3-pyridinyl)- (CA INDEX NAME)

RN 144598-71-0 HCAPLUS

CN 3-Pyridinemethanamine, 5,6-dichloro-N-methyl- (CA INDEX NAME)

RN 162327-73-3 HCAPLUS

CN 3-Pyridinecarboxamide, 5,6-dichloro-N-methoxy-N-methyl- (CA INDEX NAME)

RN 202395-72-0 HCAPLUS

CN Pyridine, 2,3-dichloro-5-(methoxymethyl)- (CA INDEX NAME)

RN 287714-93-6 HCAPLUS

CN Pyridine, 5-(bromomethyl)-2,3-dichloro- (CA INDEX NAME)

RN 683243-82-5 HCAPLUS

CN 3-Pyridinemethanol, 5,6-dichloro- α -methyl- (CA INDEX NAME)

RN 683243-85-8 HCAPLUS CN 1H-Isoindole-1,3(2H)-dione, 2-[(5,6-dichloro-3-pyridinyl)methyl]- (CA INDEX NAME)

RN 683243-86-9 HCAPLUS

CN Acetamide, N-[(5,6-dichloro-3-pyridinyl)methyl]- (CA INDEX NAME)

RN 683243-89-2 HCAPLUS

CN Acetamide, N-[(5,6-dichloro-3-pyridinyl)methyl]-N-methyl- (CA INDEX NAME)

RN 683243-92-7 HCAPLUS

CN 3-Pyridinemethanol, 5,6-dichloro- α , α -dimethyl- (CA INDEX NAME)

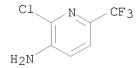
IT 117519-09-2, 3-Amino-2-chloro-6-(trifluoromethyl)pyridine

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of benzimidazoles as vanilloid receptor ligands)

RN 117519-09-2 HCAPLUS

CN 3-Pyridinamine, 2-chloro-6-(trifluoromethyl)- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 11 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:836829 HCAPLUS

DOCUMENT NUMBER: 139:323519

TITLE: Preparation of imidazoarenes as prostaglandin E2

subtype EP4 receptor antagonists for treatment of IL-6

involved diseases

INVENTOR(S): Shimojo, Masato; Taniguchi, Kana

PATENT ASSIGNEE(S): Pfizer Pharmaceuticals Inc., Japan; Pfizer Inc.

SOURCE: PCT Int. Appl., 427 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND DA	ATE Z	APPLICATION NO.	DATE
WO 2003086371 WO 2003086371		0031023 T	√O 2003-IB1310	20030403
W: AE, AG, AL	AM, AT, A	AU, AZ, BA,	BB, BG, BR, BY,	BZ, CA, CH, CN,
CO, CR, CU	. CZ, DE, D	OK, DM, DZ,	EC, EE, ES, FI,	GB, GD, GE, GH,
GM, HR, HU	ID, IL, I	IN, IS, JP,	KE, KG, KP, KR,	KZ, LC, LK, LR,
LS, LT, LU	LV, MA, M	MD, MG, MK,	MN, MW, MX, MZ,	NI, NO, NZ, OM,
PH, PL, PT	RO, RU, S	SD, SE, SG,	SK, SL, TJ, TM,	TN, TR, TT, TZ,
UA, UG, US	UZ, VN, Y	YU, ZA, ZM,	ZW	
RW: GH, GM, KE	LS, MW, M	MZ, SD, SL,	SZ, TZ, UG, ZM,	ZW, AM, AZ, BY,
KG, KZ, MD	RU, TJ, T	IM, AT, BE,	BG, CH, CY, CZ,	DE, DK, EE, ES,
FI, FR, GB	GR, HU, I	IE, IT, LU,	MC, NL, PT, RO,	SE, SI, SK, TR,
BF, BJ, CF	. CG, CI, C	CM, GA, GN,	GQ, GW, ML, MR,	NE, SN, TD, TG

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CA 2481535
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                                                                 20030403
                        A1
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                               20031027
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                               20080925
    EP 1499305
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                               20050126
                                           EP 2003-710104
                                                                 20030403
           AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
    BR 2003009200
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    CN 1658847
                               20050824
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    JP 2005533756
                        Τ
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                              20061020
                                         RU 2004-130320
                                                                 20030403
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    CN 101023946
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                                          CN 2007-10084937
                                                                 20030403
    US 20030236260
                       A1
                             20031225
                                         US 2003-411491
                                                                 20030410
    US 7148234
                       B2 20061212
    MX 2004PA09243
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    NO 2004004462
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                                          NO 2004-4462
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                        Α
                        A1
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                                          US 2006-556414
                                                                 20061103
                                          US 2003-411491

L 20020412

A3 20030403

W 20030403

A3 200202
PRIORITY APPLN. INFO.:
                                          US 2002-372364P
                                                            P 20020412
OTHER SOURCE(S):
                       MARPAT 139:323519
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The present invention relates to the use of a prostaglandin E2 (PGE2) AB subtype EP4 receptor ligand in the manufacture of a medicament for the treatment of interleukin 6 (IL-6) involved diseases, such as alc. cirrhosis, amyloidosis, atherosclerosis, cardiac disease, sclerosis, and organ transplantation reactions (no data). The invention also relates to the assay which comprises culturing peripheral whole blood with a test compound and determining the effect of the compound on PGE2-induced whole blood cells activation. Three hundred eighty title compds. I [wherein Y1-Y4 = N, CH, CL; R1 = H, (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, alkoxy, pyrrolidinyl, amino, etc.; A = (un)substituted 5-6 membered (un) substituted monocyclic (hetero) aromatic ring; B = halo-substituted alkylene, cycloalkylene, alkenylene, alkynylene, alkyleneoxy, etc., optionally substituted with an oxo or alkyl group; W = amino, O, S, bond, etc.; R2 = H, OH, alkyl, alkoxy; Z = 5-12 membered (un)substituted monocyclic or bicyclic (hetero)aryl; L = halo, alkyl, haloalkyl, OH, alkoxy, haloalkoxy, alkylthio, NO2, amino, etc.] were prepared Thus, cycloaddn. of 2-[4-[(3-amino-4,6-dimethyl-2-pyridinyl)amino]phenyl]ethanol(4-step preparation given) with propionyl chloride in toluene provided 2-[4-(2-ethyl-5,7-dimethyl-3H-imidazo[4,5-b]]pyridin-3-y1)phenyl]ethyl propionate, which was treated with aqueous LiOH to give the ethanol derivative (86%). Chlorination (90%) using thionyl chloride, conversion to the azide (85%), and Pd/C catalyzed hydrogenation afforded the amine (94%). Coupling of the amine with p-toluenesulfonyl isocyanate in CH2Cl2 gave II (56%). The latter significantly inhibited IL-6 secretion by PGE2 in ConA-stimulated human peripheral blood mononuclear cells (PBMC). ΙT 415908-43-9P, 2-[4-[(5,6-Dichloro-3-nitro-2-

pyridinyl)amino]phenyl]ethanol 415908-45-1P,

^{*} STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

2-[4-[(3-Amino-5,6-dichloro-2-pyridinyl)amino]phenyl]ethanol 415911-46-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(preparation of imidazoarene prostaglandin EP4 receptor antagonists for treatment of IL-6 involved diseases)

RN 415908-43-9 HCAPLUS

CN Benzeneethanol, 4-[(5,6-dichloro-3-nitro-2-pyridinyl)amino]- (CA INDEX NAME)

RN 415908-45-1 HCAPLUS

CN Benzeneethanol, 4-[(3-amino-5,6-dichloro-2-pyridinyl)amino]- (CA INDEX NAME)

RN 415911-46-5 HCAPLUS

CN Carbamic acid, [2-[4-[(3-amino-2-chloro-6-methyl-4-pyridinyl)amino]phenyl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

L9 ANSWER 12 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:706542 HCAPLUS

DOCUMENT NUMBER: 137:353202

TITLE: Synthesis, Nicotinic Acetylcholine Receptor Binding,

and Antinociceptive Properties of

2-exo-2-(2',3'-Disubstituted

5'-pyridinyl)-7-azabicyclo[2.2.1]heptanes: Epibatidine

Analogues

AUTHOR(S): Carroll, F. Ivy; Lee, Jeffrey R.; Navarro, Hernan A.;

Ma, Wei; Brieaddy, Lawrence E.; Abraham, Philip;

Damaj, M. I.; Martin, Billy R.

CORPORATE SOURCE: Chemistry and Life Sciences, Research Triangle

Institute, Research Triangle Park, NC, 27709, USA Journal of Medicinal Chemistry (2002), 45(21),

4755-4761

CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

Ι

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:353202

GΙ

SOURCE:

AΒ A number of 2',3'-disubstituted epibatidine analogs were synthesized and evaluated in vitro for potency at nicotinic acetylcholine receptors (nAChRs) and in vivo for antinociception activity in the tail-flick and hot-plate models of acute pain and for their ability to affect core body temperature Compds. that possessed electron-withdrawing groups (F, Cl, Br, and I) in both the 2'- and the 3'-positions showed affinities at the nAChR similar to epibatidine. However, in vivo efficacy did not correlate with affinity. 2-Exo-(3'-Amino-2'-chloro-5'-pyridinyl)-7azabicyclo[2.2.1]heptane (I), an epibatidine analog possessing an electron-releasing amino group in the 3'-position, produced the highest affinity. Compound I was also the most selective epibatidine analog with a Ki of 0.001 nM at $\alpha\beta$ nAChRs, which is 26 times greater than that of epibatidine, and a $\alpha\beta/\alpha$ 7 Ki ratio of 14 000, twice that of epibatidine. In vivo testing revealed that this compound potently inhibited nicotine-induced antinociception with AD50 values below 1 μ g/kg. Surprisingly, this same compound was also an agonist at higher doses (ED50 .apprx.20 $\mu g/kg$). Thus, the addition of the 3'-amino group to epibatidine confers potent antagonist activity to the compound with little effect on agonist activity. 2,3-Disubstituted epibatidine analogs possessing a 2'-amino group combined with a 3'-bromo or 3'-iodo group showed in vitro and in vivo nAChR properties similar to nicotine. 426460-53-9P 426460-57-3P ΙT

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of disubstituted pyridinyl azabicyclo heptanes as epibatidine analogs, in vitro evaluation of their affinity for nicotinic acetylcholine receptors and in vivo evaluation of their antinociceptive properties in rats)

RN 426460-53-9 HCAPLUS
CN 7-Azabicyclo[2.2.1]heptane, 2-(5,6-dichloro-3-pyridinyl)-, (1R,2R,4S)-rel(CA INDEX NAME)

Relative stereochemistry.

RN 426460-57-3 HCAPLUS
CN 7-Azabicyclo[2.2.1]heptane, 2-(5,6-dichloro-3-pyridinyl)-, hydrochloride (1:1), (1R,2R,4S)-rel- (CA INDEX NAME)

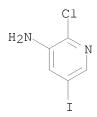
Relative stereochemistry.

● HCl

Relative stereochemistry.

RN 426463-09-4 HCAPLUS

CN 3-Pyridinamine, 2-chloro-5-iodo- (CA INDEX NAME)



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 13 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:368215 HCAPLUS

DOCUMENT NUMBER: 136:386020

TITLE: Preparation of pyridinylbicycloheptanes and related

compounds for promoting smoking cessation and for

other indications.

INVENTOR(S):
Carroll, F. Ivy

PATENT ASSIGNEE(S): Research Triangle Institute, USA

SOURCE: PCT Int. Appl., 115 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

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RW:	GH,	GM,	•	LS,	MW,	MZ,	•	•		•	•			•	CH, TR,	•

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PRIORITY APPLN. INFO.:
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                                             WO 2001-US42927
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                                                                 A1 20030107
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OTHER SOURCE(S): MARPAT 136:386020

AB A method of training a smoker to quit smoking comprises administration of title compds. [I; A1, A2 = H, OH, NRC(:NR)NR2, NR2; A1A2 = O, :NOR, :NR, ONR, NRNR; Q = CX, N; \geq 1 Q = N, \geq 1 Q = CX; X = H, halo, alkenyl, alkynyl, aryl, aralkyl, OH, CH2CO2R, COR, NR2, SO2CF3, NO2, N3, cyano, CF3, etc.; R = H, alkyl, alkenyl, alkynyl, aryl, aralkyl]. Thus, 7-tert-butoxycarbonyl-7-azabicyclo[2.2.1]heptene, 2-fluoro-5-iodopyridine, Bu4NC1, KO2CH, and Pd(OAc)2 were stirred 4 days in DMF to give 51% 7-tert-butoxycarbonyl-2-exo-[5-(2-fluoropyridinyl)]-7- azabicyclo[2.2.1]heptane. This was stirred with CF3CO2H in CH2Cl2 to give 66% 2-exo-[5-(2-fluoropyridinyl)]-7-azabicyclo[2.2.1]heptane. In an α 4 β 2 nAChR-epibatidine binding assay using rat cerebral cortex homogenate, tested compds. showed IC50 = 0.005 nM to >1000 nM.

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyridinylbicycloheptanes and related compds. for promoting smoking cessation and for other indications) $\ \ \ \,$

RN 426460-53-9 HCAPLUS

CN 7-Azabicyclo[2.2.1]heptane, 2-(5,6-dichloro-3-pyridinyl)-, (1R,2R,4S)-rel-(CA INDEX NAME)

Relative stereochemistry.

stn

RN 426460-57-3 HCAPLUS

CN 7-Azabicyclo[2.2.1]heptane, 2-(5,6-dichloro-3-pyridinyl)-, hydrochloride (1:1), (1R,2R,4S)-rel- (CA INDEX NAME)

Relative stereochemistry.

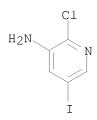
● HCl

RN 426461-98-5 HCAPLUS
CN 7-Azabicyclo[2.2.1]heptane-7-carboxylic acid,
2-(5-amino-6-chloro-3-pyridinyl)-, 1,1-dimethylethyl ester,
(1R,2R,4S)-rel- (CA INDEX NAME)

Relative stereochemistry.

RN 426463-09-4 HCAPLUS

CN 3-Pyridinamine, 2-chloro-5-iodo- (CA INDEX NAME)



L9 ANSWER 14 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:314939 HCAPLUS

DOCUMENT NUMBER: 136:340677

TITLE: Preparation of imidazoarenes as antiinflammatory and

analgesic agents.

INVENTOR(S): Nakao, Kazunari; Okumura, Yoshiyuki; Matsumizu,

Miyako; Uneo, Naomi; Hashizume, Yoshinobu; Kato,

Tomoki; Kawai, Akiyoshi; Miyake, Yoriko; Nukui, Seiji;

Shinjyo, Katsuhiro; Taniguchi, Kana

PATENT ASSIGNEE(S): Pfizer Pharmaceuticals Inc., Japan; Pfizer Inc.

SOURCE: PCT Int. Appl., 461 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT NO.	KIND DATE	APPLICATION N	NO. DATE
WO 2002032900	A2 20020	425 WO 2001-IB194	20011015
WO 2002032900	A3 20020	808	
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GM, HR, HU,	ID, IL, IN,	IS, JP, KE, KG, KP,	KR, KZ, LC, LK, LR,
LS, LT, LU,	LV, MA, MD,	MG, MK, MN, MW, MX,	MZ, NO, NZ, PH, PL,
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US, UZ, VN,	YU, ZA, ZW		

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HU 2006-593

BG 2003-107699
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ZA 2003002722 A 20040408
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ZA 2003002991 A 20040416
US 20040181059 A1 20040916
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      IN 2006MN00518
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      JP 2007277255
      A
      20071025

                                                   IN 2006-MN518
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EP 2001-978702 A3 20011015
JP 2002-536282 A3 20011015
US 2001-977621 A3 20011015
WO 2001-IB1940 W 20011015
US 2004-771696 A3 20040204
PRIORITY APPLN. INFO.:
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OTHER SOURCE(S): MARPAT 136:340677

Title compds. [I; Y1-Y4 = N, CH, CL; R1 = H, (substituted) alkyl, alkenyl, AΒ alkynyl, cycloalkyl, alkoxy, pyrrolidinyl, amino, etc.; A = (substituted) 5-6 membered monocyclic aromatic ring optionally containing up to 3 heteroatoms selected from O, N, S, etc.; B = halo-substituted alkylene, cycloalklylene, alkenylene, alkynylene, alkyleneoxy, etc., optionally substituted with an oxo group; W = amino, O, S, bond, etc.; R2 = H, OH, alkyl, alkoxy; Z = 5-12 membered (substituted) monocyclic or bicyclic aryl optionally containing up to 3 heteroatoms selected from O, N and S, etc.; L = halo, alkyl, haloalkyl, OH, alkoxy, haloalkoxy, alkylthio, NO2, amino, etc.], were prepared as prostaglandin E2 receptor antagonists, preferably as EP4 receptor antagonists. Thus, to 2-[4-(2-ethyl-5, 7-dimethyl-3H-imidazo[4, 5-b]) pyridin-3-yl) phenyl] ethylamine (preparation given) in CH2Cl2 was added p-toluenesulfonyl isocyanate followed by stirring for 3 h to give 56% 2-ethyl-5,7-dimethyl-3-[4-[2-[[[(4methylphenyl)sulfonyl]amino]carbonyl]amino]ethyl]phenyl]-3H-imidazo[4,5b]pyridine. Preferred I inhibited PGE2-induced thermal hyperalgesia in rats with ED50<60 mg/kg.

(preparation of imidazoarene prostaglandin EP4 receptor antagonists as antiinflammatory and analgesic agents)

RN 415908-43-9 HCAPLUS

CN Benzeneethanol, 4-[(5,6-dichloro-3-nitro-2-pyridinyl)amino]- (CA INDEX NAME)

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 CH_2-CH_2-OH
 NO_2

RN 415908-45-1 HCAPLUS

CN Benzeneethanol, 4-[(3-amino-5,6-dichloro-2-pyridinyl)amino]- (CA INDEX NAME)

$$C1$$
 N
 NH
 NH
 NH

RN 415911-46-5 HCAPLUS

CN Carbamic acid, [2-[4-[(3-amino-2-chloro-6-methyl-4-pyridinyl)amino]phenyl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX

NAME)

L9 ANSWER 15 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:314767 HCAPLUS

DOCUMENT NUMBER: 136:340676

TITLE: Preparation of benzimidazole derivatives as

prostaglandin EP4 receptor inhibitors to treat

rheumatoid arthritis

INVENTOR(S): Audoly, Laurent; Okumura, Takako; Shimojo, Masato

PATENT ASSIGNEE(S): Pfizer Pharmaceuticals Inc., Japan; Pfizer Inc.

SOURCE: PCT Int. Appl., 468 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

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WO	2002	0324	22		A2						2001-						
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NO 2003-1658

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PRIORITY APPLN. INFO.:
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OTHER SOURCE(S): MARPAT 136:340676

AΒ Benzimidazole derivs. I wherein Y1-Y4 are independently N, CH, alkyl, alkoxy, haloalkyl, halo, substituted alkyl, R1 is H, alkyl, alkenyl, alkynyl, cycloalkyl, alkoxy, haloalkoxy, heterocycle; R2 is H, alkyl, alkoxy, OH; A is substituted heterocycle arom ring; B is haloalkylene, cycloalkylene, alkenylene, alkynylene, oxyalkylene; W is NH, aminoalkyl, O, S, oxime, covalent bond; Z is monocyclic and bicyclic aromatic heterocycle, were prepared as prostaglandin EP4 receptor inhibitors to treat rheumatoid arthritis of rats and human. Also featured is a method of identifying agents that selectively inhibit EP4 activity in vivo. Thus, $3-(4-\{2[(\{[(3,4-dichlorophenyl)sulfonyl]amino\}carbonyl)amino]ethyl\}phenyl)-$ 2-ethyl-5,7-dimethyl-3H-imidazo[4,5-b]pyridine, hydrochloride was prepared and tested in vivo as an agent selectively inhibiting EP4 activity or selectively binding EP4; and measuring joint inflammation, joint swelling, joint ankylosis, interleukin (IL)-6, SAA protein, and/or joint mobility. 415908-43-9P, 2-[4-[(5,6-Dichloro-3-nitro-2-ΙT pyridinyl)amino]phenyl]ethanol 415908-45-1P, 2-[4-[(3-Amino-5,6-dichloro-2-pyridinyl)amino]phenyl]ethanol 415911-46-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of benzimidazole derivs. as prostaglandin ep receptor inhibitors to treat rheumatoid arthritis)

RN 415908-43-9 HCAPLUS

CN Benzeneethanol, 4-[(5,6-dichloro-3-nitro-2-pyridinyl)amino]- (CA INDEX NAME)

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 CH_2-CH_2-OH
 NO_2

415908-45-1 HCAPLUS RN

CN Benzeneethanol, 4-[(3-amino-5,6-dichloro-2-pyridinyl)amino]- (CA INDEX NAME)

$$C1$$
 N
 NH_2
 CH_2-CH_2-OH

RN 415911-46-5 HCAPLUS

CN Carbamic acid, [2-[4-[(3-amino-2-chloro-6-methyl-4pyridinyl)amino]phenyl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

ANSWER 16 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:251267 HCAPLUS

DOCUMENT NUMBER: 137:279063

TITLE: Synthesis and biological evaluation of aroylguanidines

related to amiloride as inhibitors of the human

platelet Na+/H+ exchanger

AUTHOR(S): Laeckmann, Didier; Rogister, Francoise; Dejardin,

Jean-Victor; Prosperi-Meys, Christelle; Geczy, Joseph; Delarge, Jacques; Masereel, Bernard

CORPORATE SOURCE: Natural and Synthetic Drugs Research Center,

Department of Medicinal Chemistry, CHU, Universite de

Liege, Liege, B-4000, Belg.

SOURCE: Bioorganic & Medicinal Chemistry (2002), 10(6),

1793-1804

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:279063

GΙ

$$\begin{array}{c|c} \text{Cl} & \text{N} & \text{NH} \\ & \text{N} & \text{NH}_2 \\ \text{RR}^1\text{N} & \text{N} & \text{NH}_2 \end{array}$$

AΒ Pyridine and benzene bioisosteres of amiloride such as I and II were synthesized and evaluated for their inhibitory potency against the sodium-hydrogen exchanger involved in intracellular pH regulation. Substituted diaminochloro-2-pyridinecarbonyl and diaminochloro-3-pyridinecarbonyl guanidines are prepared from 2-chloro-6-methyl-3,5-dinitropyridine and 2-methyl-1,5-pentanedinitrile, resp. Dichloro- and trichloropyridine-3-carbonyl guanidines, and simple pyridinecarbonyl and benzoyl guanidines are also prepared Several benzene derivs. and compds. bearing an carbonylquanidine moiety in the meta position of the pyridine nitrogen were much more potent than amiloride, but less so than the pyrazine inhibitor III (R = Et; R1 = Me2CH). II is the most active mol. in assays measuring the reduction in human platelet swelling due to sodium ion uptake and in assays of the inhibition of sodium ion uptake, with IC50 values of 0.8 μM in both assays. Replacement of the pyrazine ring of amiloride III (R = R1 = H) by a pyridine or a Ph ring improved the inhibitory potency for the sodium-hydrogen exchanger involved in intracellular pH regulation in the order Ph > pyridine > pyrazine.

IT 465513-38-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of benzene and pyridine isosteres of amiloride as selective inhibitors of the human platelet Na+/H+ exchanger involved in the regulation of intracellular pH)

RN 465513-38-6 HCAPLUS

CN 3-Pyridinecarboxamide, N-(aminoiminomethyl)-2,5,6-trichloro- (CA INDEX NAME)

stn

$$\begin{array}{c|c} & \text{NH} & \text{O} & \text{Cl} \\ \text{H}_2\text{N-C-NH-C} & \text{N} & \\ \hline & & \text{Cl} \\ \end{array}$$

IT 54718-39-7P 58584-88-6P 58584-95-5P

142266-62-4P 339364-12-4P 465513-08-0P

465513-12-6P 465513-13-7P 465513-26-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(preparation of benzene and pyridine isosteres of amiloride as selective inhibitors of the human platelet Na+/H+ exchanger involved in the

regulation of intracellular pH)

RN 54718-39-7 HCAPLUS

CN 3-Pyridinecarboxylic acid, 2,5,6-trichloro- (CA INDEX NAME)

RN 58584-88-6 HCAPLUS

CN 3-Pyridinecarbonyl chloride, 2,5,6-trichloro- (CA INDEX NAME)

$$\begin{array}{c|c} C1 & & C1 \\ \hline & C-C1 \\ \hline & & \\ & & \\ \end{array}$$

RN 58584-95-5 HCAPLUS

CN Pyridine, 2,3,6-trichloro-5-methyl- (CA INDEX NAME)

RN 142266-62-4 HCAPLUS

CN 3-Pyridinecarboxamide, 2,5,6-trichloro- (CA INDEX NAME)

stn

RN 339364-12-4 HCAPLUS CN Pyridine, 3-(bromomethyl)-2,5,6-trichloro- (CA INDEX NAME)

RN 465513-08-0 HCAPLUS CN 3,5-Pyridinediamine, 2-chloro-6-methyl- (CA INDEX NAME)

RN 465513-12-6 HCAPLUS CN 2-Pyridinecarboxylic acid, 3,5-diamino-6-chloro- (CA INDEX NAME)

RN 465513-13-7 HCAPLUS
CN 2-Pyridinecarboxylic acid, 3,5-diamino-6-chloro-,
3-[(1,1-dimethylethyl)amino]-1-methyl-3-oxo-1-propen-1-yl ester (CA INDEX NAME)

RN 465513-26-2 HCAPLUS

CN Pyridine, 2,3,6-trichloro-5-(dibromomethyl)- (CA INDEX NAME)

REFERENCE COUNT: 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 17 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:78383 HCAPLUS

DOCUMENT NUMBER: 134:163059

TITLE: Substituted piperazinone derivatives and other

oxoazaheterocyclyl compounds useful as factor Xa/IIa

inhibitors

INVENTOR(S): Ewing, William R.; Becker, Michael R.; Choi-Sledeski,

Yong Mi; Pauls, Heinz W.; He, Wei; Condon, Stephen M.; Davis, Roderick S.; Hanney, Barbara A.; Spada, Alfred P.; Burns, Christopher J.; Jiang, John Z.; Li, Aiwen;

Myers, Michael R.; Lau, Wan F.; Poli, Gregory B.

PATENT ASSIGNEE(S): Aventis Pharmaceuticals Products Inc., USA

SOURCE: PCT Int. Appl., 460 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT NO.					KIN	D	DATE			APPLICATION NO.						DATE			
						_													
WO 20	010	00743	36		A2		2001	0201	,	WO 2	000-	IB11	56		2	0000	726		
WO 2001007436					А3	A3 20010823													
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		ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,	LS,	LT,	LU,		
		LV.	MA.	MD,	MG,	MK,	MN.	MW.	MX.	MZ.	NO.	NZ.	PL,	PT,	RO,	RU,	SD,		

		SE, ZA,		SI,	SK,	SL,	TJ,	TM,	TR,	TI	Γ,	TZ,	UA,	UG,	US,	UZ,	VN,	YU,
	RW:	•		KE,	LS,	MW,	MZ,	SD,	SL,	SZ	Ζ,	TZ,	UG,	ZW,	AT,	BE,	CH,	CY,
								GR,										
		CF,	CG,	CI,	CM,	GA,	GN,	GW,	ML,	MF	Я,	NE,	SN,	TD,	TG,	AM,	AZ,	BY,
		KG,	KΖ,	MD,	RU,	ΤJ,	TM											
CA	2382	755			A1		2001	0201		CA	20	000-	2382	755		2	0000	726
BR	2000	0131	79		А		2002	0402		BR	20	0.00 - 1	1317	9		2	0000	726
EP	1208	097			A2		2002	0529		ΕP	20	000-	9517	81		2	0000	726
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		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	ΑI	_							
TR	2002	0022	5		Τ2		2002	0621		TR	20	002-	225			2	0000	726
HU	2002	0033	75		A2		2002	1228		HU	20	002-	3375			2	0000	726
	2002						2005	0329										
JP	2003	5083					2003	0304		JΡ	20	01-	5125.	20		2	0000	726
EE	2002	0004	5		A		2003	0616									0000	726
AU	7732	27			В2		2004	0520		ΑU	20	000-	6462	8		2	0000	726
NO	2002	0002	14		Α		2002	0402		ИО	20	002-	214			2	0020	115
BG	1063	40			Α		2002	1031		ВG	20	002-	1063	40		2	0020	122
ZA	2002	0005	43		Α		2003	0623		ZA	20	002-	543			2	0020	122
XM	2002	PA00	888		Α		2002	0730		MX	20	002-1	PA88	8		2	0020	125
PRIORITY	Y APP	LN.	INFO	.:						US	19	999-	3631	96	ž	A 1	9990	728
										WO	20	0.00 - 1	IB11	56	Ī	W 2	0000	726
OTHER SO	DURCE	(S):			MARI	PAT	134:	16305	59									

AB The invention is directed to piperazinones I and their pharmaceutically acceptable salts, prodrugs, N-oxides, hydrates, and solvates [wherein A = CH or N; G1 and G2 = L1Cy1 or L2Cy2; Cy1 and Cy2 = (un)substituted aryl, heteroaryl, cycloalkyl, cycloalkenyl, heterocyclyl, etc.; L1 = null, O, S, SO, SO2, or (un)substituted sulfamoyl, methylene, (alkyl)keto(alkyl), carbamoyl, etc.; L2 = null or linking group; R1, R1a, R2, R2a, R3, R3a, R4, R4a = independently H, carboxy, alkoxycarbonyl, alkyl, (hetero)aryl, aralkyl, heteroarylalkyl, etc.; m and n = independently 0-2]. The compds. inhibit factor Xa (no data) and factor IIa, and thereby the production of

II

thrombin, and are thus useful as anticoagulants in the treatment of a wide variety of conditions. The invention is also directed to pharmaceutical compns., synthetic intermediates, and a method of inhibiting factor Xa. Examples include the synthesis of approx. 1600 invention compds. and several hundred intermediates. For instance, condensation of 5-chloro-2-thienyloxyacetic acid with the corresponding N-benzyloxycarbonyl-protected piperazinone derivative (prepns. given), using DIPEA and TBTU in DMF, gave II.

IT 20928-38-5P 20928-46-5P 234108-60-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(intermediate; preparation of piperazinone derivs. and other substituted oxoazaheterocyclyl compds. as factor Xa/IIa inhibitors)

RN 20928-38-5 HCAPLUS

CN 4-Pyridinamine, 2,3,5,6-tetrachloro-N-(phenylmethyl)- (CA INDEX NAME)

RN 20928-46-5 HCAPLUS

CN Pyridine, 2,3,5,6-tetrachloro-4-nitro- (CA INDEX NAME)

RN 234108-60-2 HCAPLUS

CN 1-Piperazinecarboxylic acid, 3-oxo-4-[2-[(2,3,5,6-tetrachloro-4-pyridinyl)amino]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

IT 6298-19-7, 3-Amino-2-chloropyridine

RL: RCT (Reactant); RACT (Reactant or reagent) (starting material; preparation of piperazinone derivs. and other substituted oxoazaheterocyclyl compds. as factor Xa/IIa inhibitors)

RN 6298-19-7 HCAPLUS

CN 3-Pyridinamine, 2-chloro- (CA INDEX NAME)

IT 234105-96-5P 234105-97-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compound; preparation of piperazinone derivs. and other substituted oxoazaheterocyclyl compds. as factor Xa/IIa inhibitors)

RN 234105-96-5 HCAPLUS

CN 2-Piperazinone, 4-[[2-(5-chloro-2-thienyl)ethenyl]sulfonyl]-1-[2-[(2,3,5,6-tetrachloro-4-pyridinyl)amino]ethyl]- (CA INDEX NAME)

RN 234105-97-6 HCAPLUS

CN 2-Piperazinone, 1-[2-[(2-amino-3,5,6-trichloro-4-pyridinyl)amino]ethyl]-4[[2-(5-chloro-2-thienyl)ethenyl]sulfonyl]- (CA INDEX NAME)

C1
$$CH = CH - S - N - CH_2 - CH_2 - NH - NH_2$$

L9 ANSWER 18 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:384179 HCAPLUS

DOCUMENT NUMBER: 133:30741

TITLE: Substituted piperazinone derivatives and other

oxoazaheterocyclyl compounds useful as factor Xa

inhibitors

INVENTOR(S): Ewing, William R.; Becker, Michael R.; Myers, Michael

R.; Spada, Alfred P.

PATENT ASSIGNEE(S): Aventis Pharmaceuticals Products Inc., USA

SOURCE: PCT Int. Appl., 219 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

	PATENT NO.			KIND DATE			APPLICATION NO.						DATE					
	WO	2000	 0325	 90		A1	_									1	 9991	124
		W:	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	ВG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,	DE,
			DK,	EE,	ES,	FΙ,	GB,	GE,	GH,	GM,	HU,	ID,	IL,	IS,	JP,	KE,	KG,	KP,
			KR,	KΖ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,	NO,
			NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ΤJ,	TM,	TR,	TT,	UA,
			UG,	US,	UZ,	VN,	YU,	ZW										
		RW:	GH,	GM,	ΚE,	LS,	MW,	SD,	SL,	SZ,	TZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,	DE,
			DK,	ES,	FΙ,	FR,	GB,	GR,	IE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,
			CG,	CI,	CM,	GΑ,	GN,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG				
	WO	9937.	304			A1		1999	0729		WO 1	999-	US16	82		1	9990	127
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			EE,	ES,	FΙ,	GB,	GE,	GH,	HU,	IL,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,
			LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,	NO,	NΖ,	PL,	PT,
			RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	UA,	UG,	US,	UZ,
			VN,	YU,	ZW													
		RW:	GH,	GM,	KΕ,	LS,	MW,	SD,	SZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,	DE,	DK,	ES,
			FΙ,	FR,	GB,	GR,	ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	BF,	ΒJ,	CF,	CG,	CI,
			CM,	GΑ,	GN,	G₩,	ML,	MR,	ΝE,	SN,	TD,	ΤG						
	_	2003		_		Τ		2003	1007		JP 2	000-	5852	32		1	9991	124
PRIOR	IT:	Y APP	LN.	INFO	.:						US 1						9981	
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											US 1						9990	
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											WO 1	999-	US28	074	,	W 1	9991	124
OTHER	SC	DURCE	(S):			MAR:	PAT	133:	3074	1								

OTHER SOURCE(S): MARPAT 133:30741

GΙ

AΒ The invention is directed to piperazinones I and their pharmaceutically acceptable salts, prodrugs, N-oxides, hydrates, and solvates [wherein R1 = H, alkyl, aryl, aralkyl, heteroaryl, heteroarylalkyl, alkoxy, aminoalkyl, CH2OZ, CH(CH3)OZ; R2 = H, (un)substituted alkyl, aryl, aralkyl, heteroaryl, or heteroarylalkyl; R3 = H or Me; X = N or O; Z = lower alkyl or alkoxycarbonylalkyl; Cyl = (un)substituted aryl, (un)substituted heteroaryl; Cy2 = (un)substituted aryl, heteroaryl, cycloalkyl, cycloalkenyl, heterocyclyl, etc.]. The compds. inhibit factor Xa (no data), and thereby the production of thrombin, and are thus useful as anticoagulants in the treatment of a wide variety of conditions. invention is also directed to pharmaceutical compns., synthetic intermediates, and a method of inhibiting factor Xa. Examples include the synthesis of approx. 780 invention compds., approx. 50 of which are also claimed, and several hundred intermediates. For instance, condensation of 5-chloro-2-thienyloxyacetic acid with the corresponding N-benzyloxycarbonyl-protected piperazinone derivative (prepns. given), using DIPEA and TBTU in DMF, gave the preferred title compound II. ΙT 20928-38-5P 20928-46-5P 234108-60-2P

ΙI

(Preparation); RACT (Reactant or reagent)
 (intermediate; preparation of piperazinone derivs. and other substituted oxoazaheterocyclyl compds. as factor Xa inhibitors)
20928-38-5 HCAPLUS

RN 20928-38-5 HCAPLUS CN 4-Pyridinamine, 2,3,5,6-tetrachloro-N-(phenylmethyl)- (CA INDEX NAME)

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

RN 20928-46-5 HCAPLUS

CN Pyridine, 2,3,5,6-tetrachloro-4-nitro- (CA INDEX NAME)

RN 234108-60-2 HCAPLUS

CN 1-Piperazinecarboxylic acid, 3-oxo-4-[2-[(2,3,5,6-tetrachloro-4-pyridinyl)amino]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

$$\begin{array}{c|c} C1 & O \\ \hline \\ NH-CH_2-CH_2-N \\ \hline \\ C1 & C-OBu-t \\ \hline \\ O \end{array}$$

IT 6298-19-7, 3-Amino-2-chloropyridine

RL: RCT (Reactant); RACT (Reactant or reagent)

(starting material; preparation of piperazinone derivs. and other substituted oxoazaheterocyclyl compds. as factor Xa inhibitors)

RN 6298-19-7 HCAPLUS

CN 3-Pyridinamine, 2-chloro- (CA INDEX NAME)

IT 234105-96-5P 234105-97-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compound; preparation of piperazinone derivs. and other substituted oxoazaheterocyclyl compds. as factor Xa inhibitors)

RN 234105-96-5 HCAPLUS

CN 2-Piperazinone, 4-[[2-(5-chloro-2-thienyl)ethenyl]sulfonyl]-1-[2-[(2,3,5,6-tetrachloro-4-pyridinyl)amino]ethyl]- (CA INDEX NAME)

C1
$$CH = CH - S - N - CH_2 - CH_2 - NH - C1$$

RN 234105-97-6 HCAPLUS

CN 2-Piperazinone, 1-[2-[(2-amino-3,5,6-trichloro-4-pyridinyl)amino]ethyl]-4-[[2-(5-chloro-2-thienyl)ethenyl]sulfonyl]- (CA INDEX NAME)

$$\begin{array}{c|c} C1 & \\ C1 & \\$$

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 19 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:487215 HCAPLUS

DOCUMENT NUMBER: 131:130007

TITLE: Substituted piperazinone derivatives and other

oxoazaheterocyclyl compounds useful as factor Xa

inhibitors

INVENTOR(S): Ewing, William R.; Becker, Michael R.; Choi-Sledeski,

Yong Mi; Pauls, Heinz W.; He, Wei; Condon, Stephen M.; Davis, Roderick S.; Hanney, Barbara A.; Spada, Alfred P.; Burns, Christopher J.; Jiang, John Z.; Li, Aiwen;

Myers, Michael R.; Lau, Wan F.; Poli, Gregory B. Rhone-Poulenc Rorer Pharmaceuticals Inc., USA

PATENT ASSIGNEE(S): Rhone-Poulenc Rorer Pharmaceuticals Inc

SOURCE: PCT Int. Appl., 300 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT		KIND DATE			APPLICATION NO.							DATE				
WO 9937	304			A1 19990729				1	WO 1	999-		19990127				
W:	AL,	ΑM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	CA,	CN,	CU,	CZ,	DE,	DK,
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	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,	NO,	NZ,	PL,	PT,
	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	UA,	UG,	US,	UZ,

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              CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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             AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO,
              NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA,
              UG, US, UZ, VN, YU, ZW
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
              DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
              CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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                                                NO 2000-3808
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                                                BG 2000-104633
     BG 104633
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                                                US 2003-628093
                                                                          20030725
PRIORITY APPLN. INFO.:
                                                US 1998-72707P
                                                                      A2 19980127
                                                US 1998-110012P
                                                                      A2 19981125
                                                WO 1999-US1682
                                                                      W 19990127
                                                US 1999-313611
                                                                      A2 19990518
                                                US 1999-363196
                                                                      A2 19990728
                                                WO 1999-US28074
                                                                    W 19991124
OTHER SOURCE(S):
                          MARPAT 131:130007
GΙ
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stn

The invention is directed to oxoazaheterocyclyl compds. I and their AΒ pharmaceutically acceptable salts, prodrugs, N-oxides, hydrates, and solvates [wherein A = CH, N; G1, G2 = (independently) -L-Cy; L = various atomic and mol. linkers, including O, (un)substituted NH or S, alk(en/yn)ylene, etc., or their combinations; Cy = (un)substituted (hetero)aryl, cycloalk(en)yl, heterocyclyl, etc.; R = (independently) H, CO2H, alkoxycarbonyl, (un)substituted carbamoyl, alkyl, (hetero)aryl, (hetero)aralkyl; or two geminal R groups = 0 or S; m, n = 0-2; with provisos]. The compds. inhibit factor Xa (no data), and thereby the production of thrombin, and are thus useful as anticoagulants in the treatment of a wide variety of conditions. The invention is also directed to pharmaceutical compns., synthetic intermediates, and a method of inhibiting factor Xa. Examples include the synthesis of approx. 780 compds. I, which are also claimed, and several hundred intermediates. For instance, sulfonamidation of 6-chlorobenzo[b]thiophene-2-sulfonyl chloride with 4-(2-oxopiperazin-1-ylmethyl) benzamidine bistrifluoroacetate (prepns. given) in CH2Cl2 in the presence of Et3N gave title compound II.

IT 20928-38-5P 20928-46-5P 234108-60-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of piperazinone derivs. and other substituted oxoazaheterocyclyl compds. as factor Xa inhibitors)

RN 20928-38-5 HCAPLUS

CN 4-Pyridinamine, 2,3,5,6-tetrachloro-N-(phenylmethyl)- (CA INDEX NAME)

RN 20928-46-5 HCAPLUS

CN Pyridine, 2,3,5,6-tetrachloro-4-nitro- (CA INDEX NAME)

stn

RN 234108-60-2 HCAPLUS

CN 1-Piperazinecarboxylic acid, 3-oxo-4-[2-[(2,3,5,6-tetrachloro-4-pyridinyl)amino]ethyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

C1
$$CH_2-CH_2-N$$
 CH_2-CH_2-N CH_2-N CH_2-N

IT 6298-19-7, 3-Amino-2-chloropyridine

RL: RCT (Reactant); RACT (Reactant or reagent)

(starting material; preparation of piperazinone derivs. and other substituted oxoazaheterocyclyl compds. as factor Xa inhibitors)

RN 6298-19-7 HCAPLUS

CN 3-Pyridinamine, 2-chloro- (CA INDEX NAME)

IT 234105-96-5P 234105-97-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compound; preparation of piperazinone derivs. and other substituted oxoazaheterocyclyl compds. as factor Xa inhibitors)

RN 234105-96-5 HCAPLUS

CN 2-Piperazinone, 4-[[2-(5-chloro-2-thienyl)ethenyl]sulfonyl]-1-[2-[(2,3,5,6-tetrachloro-4-pyridinyl)amino]ethyl]- (CA INDEX NAME)

C1
$$CH = CH - S - N - CH_2 - CH_2 - NH - C1$$
 $C1 - N - CH_2 - CH_2 - NH - C1$
 $C1 - N - CH_2 - CH_2 - NH - C1$

234105-97-6 HCAPLUS RN

2-Piperazinone, 1-[2-[(2-amino-3,5,6-trichloro-4-pyridinyl)amino]ethyl]-4-CN [[2-(5-chloro-2-thienyl)ethenyl]sulfonyl]- (CA INDEX NAME)

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 1 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 20 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN L9

ACCESSION NUMBER: 1997:308346 HCAPLUS

DOCUMENT NUMBER: 126:330626

ORIGINAL REFERENCE NO.: 126:64259a,64262a

TITLE: Preparation of 8-aza-, 6-aza- and

6,8-diaza-1,4-dihydroquinoxaline-2,3-diones as

antagonists for the glycine/NMDA receptor INVENTOR(S):

Cai, Sui X.; Keana, John F. W.; Weber, Eckard

PATENT ASSIGNEE(S): Oregon Health Sciences University, USA; University of

California; ACEA Pharmaceuticals, Inc.

U.S., 37 pp., Cont.-in-part of U.S. Ser. No. 289,366, SOURCE:

abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5620978	A	19970415	US 1995-368163	19950103
CA 2180122	A1	19950713	CA 1995-2180122	19950103
IL 112235	A	20000629	IL 1995-112235	19950103
US 5863916	A	19990126	US 1997-795387	19970204
JP 2005247864	A	20050915	JP 2005-121174	20050419
PRIORITY APPLN. INFO.:			US 1994-176278	B2 19940103

US 1994-289366 B2 19940811 JP 1995-518626 A3 19950103 US 1995-368163 A3 19950103

OTHER SOURCE(S):

CASREACT 126:330626; MARPAT 126:330626

$$R^3$$
 R^4
 R^3
 R^4
 R^3
 R^4
 R^3
 R^4
 R^4
 R^3
 R^4
 R^4

Ι

Title compds. I [R = H, OH, NH2, CH2CONHR1, NHCONHR1, NHCOCH2R1, COCH2R1, (un)esterified carboxyalkyl; R1 = aryl; R2, R3 = H, NO2, NH2, halo, haloalkyl, CN, alkyl, cycloalkyl, alkenyl, alkynyl, N3, acylamino, alkylsulfonyl, (un)substituted aryl, heteroaryl, alkoxy, trialkylsilyl-substituted alkoxy, (un)substituted aryloxy, heterocyclic, heterocyclyloxy, aralkoxy, haloalkoxy; R4 = H, F] were prepared These compds. have high binding to the glycine site of the NMDA receptor and are useful in treating or preventing neuronal loss associated with stroke, ischemia, CNS trauma or hypoglycemia. Thus, 2-amino-5-chloropyridine was nitrated, reduced to the diamine, cyclized with oxalic acid, and oxidized to give I [R, R2, R4 = H, R3 = C1, II]. II had a ki of 600 nM for glycine/NMDA receptor binding and an anticonvulsant ED50 of 1-1.5 mg/kg in mice.

(preparation of azaquinoxalinediones as NMDA receptor antagonists)

RN 97941-89-4 HCAPLUS

CN 2,3-Pyridinediamine, 5,6-dichloro- (CA INDEX NAME)

RN 101079-63-4 HCAPLUS

CN 3,4-Pyridinediamine, 2,6-dichloro- (CA INDEX NAME)

L9 ANSWER 21 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:754788 HCAPLUS

DOCUMENT NUMBER: 126:47080
ORIGINAL REFERENCE NO.: 126:9281a,9284a

TITLE: Synthesis of dihalopicoline N-oxides and their 4-nitro

derivatives

AUTHOR(S): Ciurla, H.; Puszko, A.

CORPORATE SOURCE: Russia

SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1996), (10),

1366-1371

CODEN: KGSSAQ; ISSN: 0132-6244

PUBLISHER: Latviiskii Institut Organicheskogo Sinteza

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 126:47080

AB Three aminohalo-substituted α - and β -picolines, six dihalo-substituted α - and β -picolines, six dihalo-substituted α - and β -picoline N-oxides, and six dihalo-4-nitropicoline

N-oxides were synthesized in excellent yields. Some properties of the

products were reported.

IT 39745-40-9P, 3-Pyridinamine, 2-chloro-6-methyl-

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(preparation and diazotization-halogenation of)

RN 39745-40-9 HCAPLUS

CN 3-Pyridinamine, 2-chloro-6-methyl- (CA INDEX NAME)

IT 185017-75-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and nitration of)

RN 185017-75-8 HCAPLUS

CN Pyridine, 2,3-dichloro-6-methyl-, 1-oxide (CA INDEX NAME)

RN 54957-86-7 HCAPLUS

CN Pyridine, 2,3-dichloro-6-methyl- (CA INDEX NAME)

C1 Me

IT 185017-81-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of) RN 185017-81-6 HCAPLUS

CN Pyridine, 2,3-dichloro-6-methyl-4-nitro-, 1-oxide (CA INDEX NAME)

C1 O Me

L9 ANSWER 22 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:331979 HCAPLUS

DOCUMENT NUMBER: 125:58447

ORIGINAL REFERENCE NO.: 125:11237a,11240a

TITLE: Synthesis of substituted azaoxindoles for the

preparation of aza-tenidap analogs

AUTHOR(S): Robinson, Ralph P.; Donahue, Kathleen M.; Son, Paul

S.; Wagy, Steven D.

CORPORATE SOURCE: Central Research Division, Pfizer Inc., Groton, CT,

06340, USA

SOURCE: Journal of Heterocyclic Chemistry (1996), 33(2),

287-293

CODEN: JHTCAD; ISSN: 0022-152X

PUBLISHER: HeteroCorporation

DOCUMENT TYPE: Journal LANGUAGE: English

GI

 AB The preparation of azaoxindoles, i.e., 2H-pyrrolo[3,2-b]pyridin-2-ones I (X = H, halo, methoxy, etc.; Y = H, halo, CF3) bearing substituents on the aromatic nucleus was outlined. These compds. were required for the preparation of

aza-analogs of the antiinflammatory oxindole tenidap. Two methods of synthesis were used, the first involving the addition of malonate to 2-chloro-3-nitropyridine derivs. followed by nitro group reduction and one-pot cyclization/hydrolysis/decarboxylation. The second method, utilizing the vicarious nucleophilic substitution (VNS) reaction of nitropyridine derivs. (followed by nitro group reduction and one-pot cyclization/hydrolysis), constitutes a novel route to azaoxindoles. Also prepared was 7-chloro-1,3-dihydro-2H-pyrrolo[2,3-c]pyridin-2-one (II).

IT 136888-27-2P 136888-76-1P 136888-78-3P

178393-18-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyrrolo[3,2-b]pyridinones as intermediates for tenidap analogs)

RN 136888-27-2 HCAPLUS

CN Propanedioic acid, 2-(5,6-dichloro-3-nitro-2-pyridinyl)-, 1,3-diethyl ester (CA INDEX NAME)

RN 136888-76-1 HCAPLUS

CN Propanedioic acid, 2-(5-amino-6-chloro-2-pyridinyl)-, 1,3-diethyl ester (CA INDEX NAME)

RN 136888-78-3 HCAPLUS

CN Propanedioic acid, 2-(5-amino-3,6-dichloro-2-pyridinyl)-, 1,3-diethyl ester (CA INDEX NAME)

stn

RN 178393-18-5 HCAPLUS

CN 4-Pyridineacetonitrile, 3-amino-2-chloro- (CA INDEX NAME)

$$NC-CH_2$$
 NH_2
 NH_2

L9 ANSWER 23 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1989:38894 HCAPLUS

DOCUMENT NUMBER: 110:38894

ORIGINAL REFERENCE NO.: 110:6475a,6478a

TITLE: Preparation of 2,6-dihalo-3-(arylmethyl)pyridines as

dye intermediates

INVENTOR(S): Weis, Claus D.; Sutter, Peter

PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz. SOURCE: Eur. Pat. Appl., 17 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
EP 272221 EP 272221	A2	19880622 19890104	EP 1987-810753		19871214
R: CH, DE, FR,	A3 GB, LI				
US 4897484	A	19900130	US 1987-130486		19871209
JP 63165366	A	19880708	JP 1987-319105		19871218
PRIORITY APPLN. INFO.:			CH 1986-5096	A	19861219
OTHER SOURCE(S):	MARPAT	110:38894			

- AB The title compds. (I; R = aryl, heteroaryl; X = halo) were prepared by diazotization of RNH2, condensation of the product with H2C:C(CN)CH2CH2CN (II) to give RCH2CX(CN)CH2CH2CN which is cyclized to a piperidine-2,6-dione, and aromatization to I. Thus, aniline and II were heated to 55-60° in MeP(O)(OMe)2 containing HCl and CuCl and EtCHMeONO added over 1.5 h and the mixture stirred an addnl. 1.5 h to give PhCH2CCl(CN)CH2CH2CN which was refluxed 2 h in HOAc containing H2SO4 to give III. The latter was refluxed 7 h in POCl3 containing (Me2N)3P to give 50% I (R = Ph, X = Cl).
- IT 112177-06-7P 118327-79-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation); RACT (Reactant or reagent)
 (preparation and reaction of, in preparation of dye intermediates)
- RN 112177-06-7 HCAPLUS
 CN Pentanedinitrile, 2-chloro-2-[(2,5,6-trichloro-3-pyridinyl)methyl]- (CA INDEX NAME)

$$\begin{array}{c|c} \text{C1} & \text{C1} \\ \text{C1} & \text{CN} \\ \text{CH}_2 - \text{C} - \text{CH}_2 - \text{CH}_2 - \text{CN} \\ \text{C1} & \text{C1} \end{array}$$

RN 118327-79-0 HCAPLUS CN 2,6-Piperidinedione, 3-chloro-3-[(2,5,6-trichloro-3-pyridinyl)methyl]-(CA INDEX NAME)

- CN Pyridine, 2,3,6-trichloro-5-[(2,6-dichloro-3-pyridinyl)methyl]- (CA INDEX NAME)

IT 6298-19-7, 2-Chloro-3-aminopyridine 55304-76-2

62476-56-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in preparation of dye intermediates)

RN 6298-19-7 HCAPLUS

CN 3-Pyridinamine, 2-chloro- (CA INDEX NAME)

RN 55304-76-2 HCAPLUS

CN 3-Pyridinamine, 2,5,6-trichloro- (CA INDEX NAME)

RN 62476-56-6 HCAPLUS

CN 3-Pyridinamine, 2,6-dichloro- (CA INDEX NAME)

L9 ANSWER 24 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:610902 HCAPLUS

DOCUMENT NUMBER: 109:210902

ORIGINAL REFERENCE NO.: 109:34887a,34890a

TITLE: Preparation N-pyridyl-N'-benzoylureas as insecticides INVENTOR(S): Toki, Tadaaki; Tsujii, Yasuhiro; Yoshida, Kyomitsu;

Nakamura, Yuji; Imai, Osamu; Kimura, Tokiya

PATENT ASSIGNEE(S): Ishihara Sangyo Kaisha, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63048268	A	19880229	JP 1986-191012	19860814

PRIORITY APPLN. INFO.: JP 1986-191012 19860814

OTHER SOURCE(S): MARPAT 109:210902

GΙ

AB Title compds. I [A = Q1, Q2, Q3, Q4; X1 = halo, X2,X3 = H, halo; X4 = halo, R1O; one of X5 and X6 = CF3 and other = halo, S(O)nR2; X7 = H, halo, R1O; R1 = (halo-substituted) alkyl, R2 = alkyl; n = 0-2] are prepared by reaction of 2,6-X1X2C6H3CONCO and ANH2. Chlorination of 2,6-dichloro-4-trifluoromethylpyridine with C1 in the presence of FeCl3 at 140-160° for 3 h gave 2,3,6-trichloro-4-trifluoromethylpyridine, which was autoclaved in 28% aqueous NH3 in the presence of CuCl at 120° for 12 h to afford 6-amino-2,3-dichloro-4-trifluoromethylpyridine (II). A solution of II in dioxane was treated with 2,6-F2C6H3CONCO to give I (A = Q1; X1 = X2 = F; X3 = X4 = C1), which at 800 ppm showed 100% control of Spodoptera litura. A wettable powder was formulated containing I (A = Q1; X1 = X2 = X4 = F; X3 = C1) 20, zeeklite 72, and Na ligninsulfonate 8 weight parts.

IT 81565-20-0P, 2,3,6-Trichloro-4-trifluoromethylpyridine 117519-03-6P 117519-09-2P,

3-Amino-2-chloro-6-trifluoromethylpyridine

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(preparation and reaction of, in preparation of pyridyl(benzoyl)urea insecticides)

RN 81565-20-0 HCAPLUS

CN Pyridine, 2,3,6-trichloro-4-(trifluoromethyl)- (CA INDEX NAME)

RN 117519-03-6 HCAPLUS

CN 2-Pyridinamine, 5,6-dichloro-4-(trifluoromethyl)- (CA INDEX NAME)

RN 117519-09-2 HCAPLUS

CN 3-Pyridinamine, 2-chloro-6-(trifluoromethyl)- (CA INDEX NAME)

IT 117518-86-2P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of, as insecticide)

RN 117518-86-2 HCAPLUS

CN Benzamide, N-[[[5,6-dichloro-4-(trifluoromethy1)-2-pyridinyl]amino]carbonyl]-2,6-difluoro- (CA INDEX NAME)

L9 ANSWER 25 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:55848 HCAPLUS

DOCUMENT NUMBER: 108:55848
ORIGINAL REFERENCE NO.: 108:9321a,9324a

TITLE: The synthesis of halogenated pyridines substituted at

the carbon atom C-3

AUTHOR(S): Sutter, Peter; Weis, Claus D.

CORPORATE SOURCE: Dyest. Chem. Dep., Ciba-Geigy, Ltd., Basel, Switz. SOURCE: Journal of Heterocyclic Chemistry (1987), 24(4),

1093-102

CODEN: JHTCAD; ISSN: 0022-152X

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S):

CASREACT 108:55848

GΙ

AB Seventeen 3-substituted pyridines I (R = Ph, 4-MeC6H4, 4-NO2C6H4, 2,5-Cl2C6H3, 3-pyridinyl, etc.) were prepared in 3 steps from the corresponding amines RNH2 (II). Arylation of H2C:C(CN)CH2CH2CN with II in the presence of CuCl, HCl, and isoamyl nitrite in di-Me methylphosphonate (preferred solvent) gave dicyanobutanes RCH2CCl(CN)CH2CH2CN which were cyclized with H2SO4-HOAc to give piperidinediones III. Aromatization with POCl3 in the presence of HMPA gave I.

IT 6298-19-7, 2-Chloro-3-aminopyridine 55304-76-2, 2,5,6-Trichloro-3-aminopyridine 62476-56-6, 2,6-Dichloro-3-aminopyridine RL: RCT (Reactant); RACT (Reactant or reagent)

RL: RCT (Reactant); RACT (Reactant or reagent (arylation by, of methyleneglutaronitrile)

RN 6298-19-7 HCAPLUS

CN 3-Pyridinamine, 2-chloro- (CA INDEX NAME)

RN 55304-76-2 HCAPLUS CN 3-Pyridinamine, 2,5,6-trichloro- (CA INDEX NAME)

RN 62476-56-6 HCAPLUS CN 3-Pyridinamine, 2,6-dichloro- (CA INDEX NAME)

IT 112177-06-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(preparation and cyclization of)

RN 112177-06-7 HCAPLUS

CN Pentanedinitrile, 2-chloro-2-[(2,5,6-trichloro-3-pyridinyl)methyl]- (CA INDEX NAME)

$$\begin{array}{c|c} \text{C1} & \text{C1} & \text{CN} \\ \text{C1} & \text{CH}_2\text{--}\text{C}\text{--}\text{CH}_2\text{--}\text{CH}_2\text{--}\text{CN} \\ & \text{C1} & \\ \end{array}$$

L9 ANSWER 26 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:591059 HCAPLUS

DOCUMENT NUMBER: 105:191059

ORIGINAL REFERENCE NO.: 105:30835a,30838a

TITLE: 1-Cyclopropyl-1,4-dihydro-4-oxo-1,8-naphthyridine-3-

carboxylic acids

INVENTOR(S): Petersen, Uwe; Grohe, Klaus; Zeiler, Hans Joachim;

Metzger, Karl Georg

PATENT ASSIGNEE(S): Bayer A.-G., Fed. Rep. Ger.

SOURCE: Ger. Offen., 64 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3508816	A1	19860710	DE 1985-3508816	19850313
NO 8505134	A	19860711	NO 1985-5134	19851218
NO 163331	В	19900129		
NO 163331	С	19900509		
EP 187376	A2	19860716	EP 1985-116551	19851224
EP 187376	A 3	19880504		
EP 187376	В1	19920513		
R: AT, BE, CH,	DE, FF	R, GB, IT,	LI, NL, SE	
AT 76076	T	19920515	AT 1985-116551	19851224
US 4840954	A	19890620	US 1985-815440	19851231
IL 77538	A	19920525	IL 1986-77538	19860107
FI 8600073	A	19860711	FI 1986-73	19860108
FI 86721	В	19920630		
FI 86721	С	19921012		
DD 241258	A5	19861203	DD 1986-286039	19860108
DD 257427	A5	19880615	DD 1986-296482	19860108
DD 257428	A5	19880615	DD 1986-296483	19860108
CA 1339373	С	19970826	CA 1986-499241	19860108
DK 8600091	A	19860711	DK 1986-91	19860109

DK 168439	В1	19940328				
JP 61161284	A	19860721	JP	1986-1485		19860109
JP 06053741	В	19940720				
ZA 8600163	A	19860924	ZA	1986-163		19860109
HU 40126	A2	19861128	HU	1986-87		19860109
HU 193623	В	19871130				
AU 8652164	A	19870122	ΑU	1986-52164		19860109
AU 574550	В2	19880707				
ES 550767	A5	19880715	ES	1986-550767		19860109
PL 148191	В1	19890930	PL	1986-264565		19860109
PL 148759	В1	19891130	PL	1986-257419		19860109
HU 202840	В	19910429	HU	1987-1847		19860109
CN 86100126	A	19860709	CN	1986-100126		19860110
CN 1003239	В	19890208				
NO 8600199	A	19860711	ИО	1986-199		19860121
AU 8773118	A	19870910	ΑU	1987-73118		19870515
AU 576449	В2	19880825				
AU 8818359	A	19880915	ΑU	1988-18359		19880624
FI 8902675	A	19890601	FI	1989-2675		19890601
CA 1320206	C2	19930713	CA	1990-615694		19900405
PRIORITY APPLN. INFO.:			DE	1985-3500562	Α1	19850110
			DE	1985-3508816	Α	19850313
			EP	1985-116551	Α	19851224
				1986-499241	А3	19860108
			FI	1986-73	Α	19860108

OTHER SOURCE(S): CASREACT 105:191059; MARPAT 105:191059

$$R$$
 CO_2H
 R^2
 R^3
 I
 $C1$
 N
 $C1$
 I

AB The title compds. [I; R = halo, NO2; R1 = (un)substituted 1-piperazinyl, 1-pyrrolidinyl] were prepared as bactericides and feed additives. Thus, 2,6-dichloro-5-methyl-3-pyridinamine (II, R2 = NH2, R3 = Me) was diazotized and coupled with Me2NH to give II (R2 = Me2NN:N, R3 = Me) which was fluorinated with HF to give II (R2 = F, R3 = Me). The latter was converted in 6 steps to II [R2 = F, R3 = EtO2CC(:CHOEt)CO] which was condensed with cyclopropylamine, followed by cyclization and hydrolysis of the ester group, to give I (R = F, R1 = Cl). The latter was heated with piperazine in Me2SO to give I (R = F, R1 = 1-piperazinyl) (III). III had a min. inhibitory concentration of ≤ 0.015 mcg/mL against Escherichia coli Neum. Tablets were prepared each containing III 583.0, microcyrst. cellulose 55.0, cornstarch 72.0, polyvinylpyrrolidine 30.0, dispersed silica 5.0, and Mg stearate 5.0 mg.

IT 58596-89-7

RL: RCT (Reactant); RACT (Reactant or reagent)
 (diazotization of)

RN 58596-89-7 HCAPLUS

CN 3-Pyridinamine, 2,6-dichloro-5-methyl- (CA INDEX NAME)

IT 58584-88-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP

(Preparation); RACT (Reactant or reagent)

(preparation and Grignard reaction of, with malonate)

RN 58584-88-6 HCAPLUS

CN 3-Pyridinecarbonyl chloride, 2,5,6-trichloro- (CA INDEX NAME)

IT 104866-51-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and condensation of, with orthoformate and cyclopropylamine)

RN 104866-51-5 HCAPLUS

CN 3-Pyridinepropanoic acid, 2,5,6-trichloro- β -oxo-, ethyl ester (CA INDEX NAME)

L9 ANSWER 27 OF 27 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:156113 HCAPLUS

DOCUMENT NUMBER: 82:156113

ORIGINAL REFERENCE NO.: 82:24909a,24912a
TITLE: 2,6-Dibromopyridines
INVENTOR(S): Mutterer, Francis
PATENT ASSIGNEE(S): Ciba-Geigy A.-G.
SOURCE: Ger. Offen., 26 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
DE 2432686	 A1	19750130	DE 1974-2432686		19740708
US 3974166	A	19760810	US 1974-479920		19740617
JP 50037784	A	19750408	JP 1974-77764		19740706
FR 2236861	A1	19750207	FR 1974-23983		19740710
PRIORITY APPLN. INFO.:			CH 1973-10020	A	19730710

GI For diagram(s), see printed CA Issue.

AB Fifteen pyridines I (R = Br, R1 = H, C1, NO2, CHO, CO2H, CF3, NH2, CH2Br; R2 = H, Br; R3 = H, C1, O2N), useful as plant protecting herbicides, were prepared from the corresponding chlorosubstituted pyridines, especially I (R = C1), by treatment with HBr(g). Thus, I (R = C1, R1 = R2 = R3 = H) in AcOH was treated with HBr at 110° to give 92% I (R = Br, R1 = R2 = R3 = H).

(preparation and reaction with hydrogen bromide)

RN 52465-59-5 HCAPLUS

CN Pyridine, 2,3,6-trichloro-5-(chloromethyl)- (CA INDEX NAME)

RN 54718-39-7 HCAPLUS

CN 3-Pyridinecarboxylic acid, 2,5,6-trichloro- (CA INDEX NAME)

RN 55304-72-8 HCAPLUS

CN Pyridine, 2,3,6-trichloro-5-nitro- (CA INDEX NAME)

IT 55304-76-2

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with hydrogen bromide)

RN 55304-76-2 HCAPLUS

CN 3-Pyridinamine, 2,5,6-trichloro- (CA INDEX NAME)

=> file hcaplus COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 155.22 543.56 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE -21.60-22.40

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FILE COVERS 1907 - 30 Oct 2008 VOL 149 ISS 18 FILE LAST UPDATED: 29 Oct 2008 (20081029/ED)

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L1 L2 L3	STRUCTURE UPLOADED 50 S L1 9905 S L1 FULL		
L4	FILE 'HCAPLUS' ENTERED AT 17:36:25 ON 30 OCT 2008 1550 S L3/PREP		
L5 L6 L7	FILE 'REGISTRY' ENTERED AT 17:36:34 ON 30 OCT 2008 STRUCTURE UPLOADED 18 S L5 329 S L5 FULL		
	FILE 'HCAPLUS' ENTERED AT 17:38:12 ON 30 OCT 2008 684 S L7/RCT 27 S L8 AND L4 1 S L9 AND SHAPIRO, R?/AU		
L11	FILE 'REGISTRY' ENTERED AT 17:40:46 ON 30 OCT 2008 E NITRITE/CN 1 S E3		
L13	FILE 'HCAPLUS' ENTERED AT 17:40:58 ON 30 OCT 2008 19225 S L11 0 S L12 AND L9 0 S L9 AND L12		
	FILE 'HCAPLUS' ENTERED AT 17:42:48 ON 30 OCT 2008		
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FILE COVERS 1907-1966 FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

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0.00

-22.40

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CAOLD will be discontinued and removed from associated database clusters.

- . November 22, 2008 removed from database clusters
- . December 31, 2008 removed from STN

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L1 STRUCTURE UPLOADED

L2 50 S L1

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L4 1550 S L3/PREP

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L5 STRUCTURE UPLOADED

L6 18 S L5

L7 329 S L5 FULL

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L8 684 S L7/RCT

L9 27 S L8 AND L4

L10 1 S L9 AND SHAPIRO, R?/AU

FILE 'REGISTRY' ENTERED AT 17:40:46 ON 30 OCT 2008

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FILE 'HCAPLUS' ENTERED AT 17:40:58 ON 30 OCT 2008

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L14 0 S L9 AND L12

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125 L3

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L15 1 L3 AND L7

=> s 115 and copper

1031 COPPER

41 COPPERS

1072 COPPER

(COPPER OR COPPERS)

L16 0 L15 AND COPPER

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COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
2.47
548.72

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL
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STRUCTURE FILE UPDATES: 29 OCT 2008 HIGHEST RN 1068186-59-3 DICTIONARY FILE UPDATES: 29 OCT 2008 HIGHEST RN 1068186-59-3

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L16 0 S L15 AND COPPER

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          9905 S L1 FULL
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    FILE 'REGISTRY' ENTERED AT 17:36:34 ON 30 OCT 2008
              STRUCTURE UPLOADED
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            27 S L8 AND L4
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    FILE 'HCAPLUS' ENTERED AT 17:42:48 ON 30 OCT 2008
    FILE 'CAOLD' ENTERED AT 17:42:53 ON 30 OCT 2008
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            1 S L3 AND L7
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             0 S L15 AND COPPER
     FILE 'REGISTRY' ENTERED AT 17:43:41 ON 30 OCT 2008
    FILE 'HCAPLUS' ENTERED AT 17:43:49 ON 30 OCT 2008
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      1015262 COPPER?
           1 L9 AND COPPER?
T.17
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=> s 117 not 110

0 L17 NOT L10

L18